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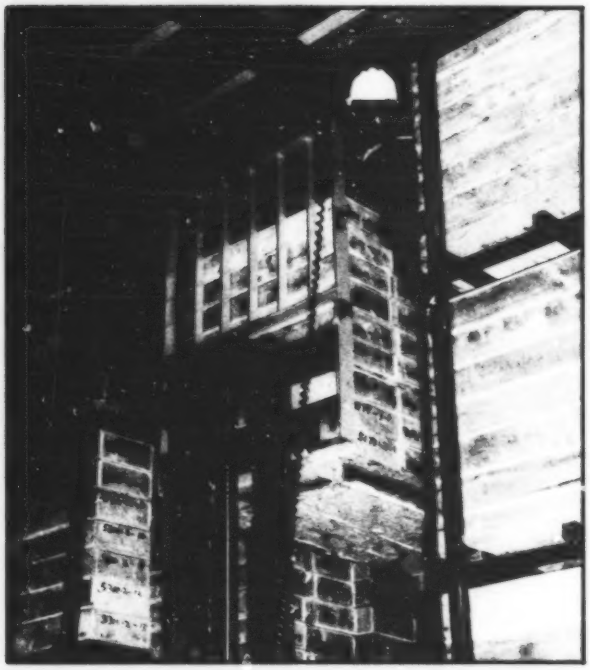
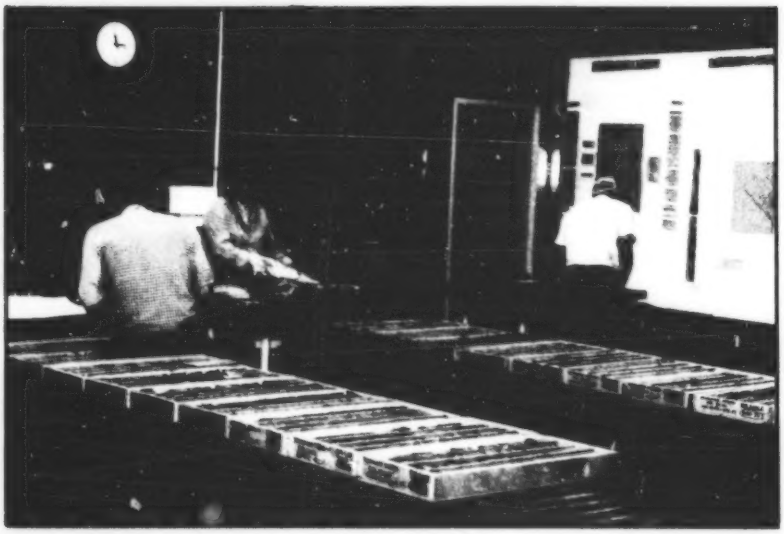


A USERS' GUIDE TO CORE-STORAGE FACILITIES IN CANADA

F. SIMPSON



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Core-storage facilities, Fort St. John, B.C. Photographs courtesy D.L. Johnson, Manager, Field Operations, B.C. Ministry of Energy, Mines and Petroleum Resources.

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Summary

1. Continuous cored sections, rock specimens, and drill cuttings from boreholes drilled in the land and offshore areas of Canada are stored in 40 government-operated repositories, where public access is granted for examination of nonconfidential data. Of these, 33 storage facilities are maintained by provincial government departments. Each province has at least one repository and seven provinces operate two or more core-storage facilities. Additional facilities are currently being planned in Manitoba (3), Ontario (3), Québec (1). Subsurface materials from federal lands (Yukon, the Northwest Territories and the Canadian offshore) are stored in four repositories operated by Canada Oil and Gas Lands Administration at Dartmouth, the Geological Survey of Canada at Calgary, and Indian and Northern Affairs Canada at Whitehorse and Yellowknife. Soft-sediment cores are stored in three federal repositories operated by the Geological Survey of Canada at Sidney near Victoria; the Department of the Environment and the Department of Fisheries and Oceans at Burlington; and the Department of Energy, Mines and Resources at Dartmouth. Nearly 3×10^6 m of cored sections are represented by continuous cores and rock specimens in storage, exclusive of soft-sediment cores. It is also noteworthy that cores recovered from seven drill holes in and near Canadian waters by the Deep Sea Drilling Project are stored at La Jolla, California (2) and Palisades, New York (5).

2. Of the 40 core-storage facilities currently in operation in Canada, 22 are staffed on a regular basis. Part-time workers make up all or part of the staff in five of those repositories. Only 10 storage facilities have staffs of two or more persons. In general, the largest numbers of personnel are to be found in the longer-established provincial repositories which house major collections of cores and drill cuttings supplied by the oil industry, notably the provincial core-storage facilities at Fort St. John, Calgary, Regina, and London. The Core Research Centre of ERCB in Calgary is exceptional in that it is operated by a large support staff of 35 persons headed by an administrative staff of 6 persons. The core-storage facilities which are unstaffed at present include repositories only recently instituted at a number of northern locations and in the Atlantic provinces to hold subsurface materials donated by mining companies. At these locations, it is necessary for users to locate and retrieve from storage the required subsurface materials for examination.

3. The holdings of core-storage facilities are commonly documented in card index files. In a number of repositories, two or more card or paper index systems are crossed-referenced with respect to company name and well location. Maps showing the locations of boreholes from which cores have been recovered and placed in storage are also commonly employed. Computer files of repository holdings are currently in use by the Alberta Geological Survey, the Atlantic Geoscience Centre (GSC), Saskatchewan Department of Energy and Mines, the Ontario Ministry of Natural Resources, and the Pacific Geoscience Centre (GSC); such files are being developed by the Ministère de l'Énergie et des Ressources du Québec and are planned by the Alberta Energy Resources Conservation Board, the Manitoba Department of Energy and Mines, and the Nova Scotia Department of Energy and Mines. Published catalogues of repository holdings have been released by the Manitoba Department of Energy and Mines, the Ministère de l'Énergie et des Ressources du Québec, the Newfoundland and Labrador Department of Mines and Energy and the New Brunswick Department of Natural Resources.

Précis

1. Les sections de carottes prélevées en continu, les échantillons de roches et les retailles qui proviennent de forage sur terre et en mer au Canada sont stockés dans 40 dépôts exploités par le gouvernement; le public y a accès pour examen des données non confidentielles. De ces dépôts, 33 sont tenus par des ministères provinciaux. Chaque province a au moins un dépôt et sept provinces exploitent au moins deux dépôts. Des installations additionnelles sont en voie de planification au Manitoba (3), en Ontario (3) et au Québec (1). Les matériaux du sous-sol prélevés dans les terres fédérales (Yukon, les Territoires du Nord-Ouest et la région offshore du Canada) sont gardés dans quatre dépôts dont la gestion est confiée à l'Administration du pétrole et du gaz des Terres du Canada, à Dartmouth, à la Commission géologique du Canada, à Calgary, et au ministère des Affaires indiennes et du Nord, à Whitehorse et à Yellowknife. Les carottes de sédiments friables sont entreposées dans trois installations fédérales gérées par la Commission géologique du Canada à Sidney, près de Victoria; le ministère de l'Environnement et le ministère des Pêches et Océans à Burlington; et le ministère de l'Énergie, des Mines et des Ressources à Dartmouth. À l'exception de carottes de sédiments friables, des carottes prélevées en continu et des échantillons de roches provenant de sections d'environ 3×10^6 m ont été entreposés. Il convient également de noter que des carottes, prélevées dans sept trous de sonde par le Deep Sea Drilling Project dans les eaux canadiennes ou à proximité, sont stockées à La Jolla, en Californie (2) et à Palisades, dans l'état de New York (5).

2. Dans 40 dépôts actuellement utilisés au Canada, 22 sont dotés d'un personnel régulier, tandis que dans cinq autres, l'effectif se compose en totalité ou en partie d'employés à temps partiel. Seulement 10 installations d'entreposage comptent au moins deux employés. En général, on trouve le plus grand nombre d'employés dans les dépôts provinciaux établis depuis longtemps qui abritent d'importantes collections de carottes et de déblais de forage fournis par l'industrie pétrolière, notamment les installations provinciales situées à Fort St. John, Calgary, Regina et London. Le Core Research Centre de l'ERCB à Calgary est exceptionnel en ceci qu'il est exploité par 35 employés de soutien qui relèvent d'un personnel administratif composé de 6 personnes. Actuellement, les dépôts de carottes de sondage qui ne sont pas pourvus de personnel sont ceux qui sont de création récente et sont situés à divers endroits dans le Nord et dans les provinces de l'Atlantique afin de garder les matériaux de sous-sol données par les sociétés minières. Les utilisateurs de ces dépôts doivent trouver et récupérer les matériaux dont ils ont besoin aux fins d'examen.

3. Les matériaux stockés dans des dépôts de carottes de sondage sont habituellement enregistrées sur des cartes-fiches. Dans un certain nombre de dépôts, au moins deux répertoires, sur carton ou sur papier, sont dotés de renvois concernant le nom de la société et l'emplacement du puits. Les cartes montrant l'emplacement des trous de sondage d'où proviennent les carottes entreposées sont aussi fréquemment utilisées. Les fichiers informatiques des carottes gardées dans les dépôts sont actuellement utilisés par l'Alberta Geological Survey, le Centre géoscientifique de l'Atlantique (CGA), le Saskatchewan Department of Energy and Mines, le ministère des Richesses naturelles de l'Ontario et le Centre géoscientifique du Pacifique (CGP); ces fichiers sont mis au points par le ministère de l'Énergie et des Ressources du Québec et ils sont planifiés par l'Alberta Energy Resources Conservation Board, le Manitoba Department of Energy and Mines et le Nova Scotia Department of Energy and Mines. Des catalogues des carottes gardées dans les dépôts ont été publiés par le Manitoba Department of Energy and Mines, le ministère de l'Énergie et des Ressources du Québec, le Newfoundland and Labrador Department of Mines and Energy et le ministère des Ressources naturelles du Nouveau-Brunswick.

4. In many of the core-storage facilities with holdings largely supplied by mining companies, subsurface materials are held confidential for as long as the property remains in good standing. However, some repositories enforce confidential status of materials in storage over specific time periods. For example, the duration of confidential status is up to 90 days in Ontario and up to three years in Northwest Territories and Newfoundland and Labrador. In other repositories, only nonconfidential materials are generally accepted for storage, although confidential status may be acquired on request by a donor. In Québec, for example, a donor may request that a core be held confidential for one year, after which the confidential status may be renewed. Cores of some potash-bearing successions are to remain confidential in perpetuity at the Regina repository of Saskatchewan Department of Energy and Mines. For cores and drill cuttings recovered from wells drilled in petroleum exploration and development, the duration of confidential status depends on the well classification and whether the drill site falls under federal or provincial jurisdiction. For federal lands (onshore and offshore), subsurface materials from exploratory wells remain confidential for two years and those from field wells are held confidential for 60 days. Wildcat wells on provincial lands have confidential status for one year; field wells are confidential for 60 days in Alberta, whereas a period of 30 days is applicable in Saskatchewan and Ontario. Soft-sediment cores and samples for the most part are made available to the public at the discretion of the research scientist for whom they were collected. In-house requirements of the repository in question are satisfied before the materials are released for investigation by outside researchers although there is no confidential period of standard duration.

5. Users pay a fee related to the amount and type of subsurface materials examined at three of the provincial repositories containing major holdings supplied by the oil industry; that is, at Fort St. John, Calgary and Regina. A fee schedule is currently pending for use of the core-storage (Phanerozoic) facilities of Manitoba Department of Energy and Mines at Winnipeg and one may also be established by the Nova Scotia Department of Mines and Energy at Stellarton. At the majority of core-storage facilities no charge is made for assistance in the location and retrieval of subsurface materials and use of examination facilities. The Oil Sands Sample Bank of the Alberta Research Council at Edmonton constitutes a special case, in that users purchase materials for investigation according to a fixed fee schedule.

6. Limitations on space available for storage have imposed a need to reduce repository holdings by retaining only a certain proportion of each core at 12 of the 40 facilities currently in operation. These repositories contain for the most part cores supplied by mining companies and five provincial agencies are represented: the Mineral Exploration Sample Storage Facility of the Alberta Geological Survey at Edmonton, the Precambrian Geological Laboratory of Saskatchewan Department of Energy and Mines at La Ronge, the diamond drill core libraries of the Ontario Ministry of Natural Resources, the core-storage facilities of the Ministère de l'Énergie et des Ressources du Québec, and the Sussex and Fredericton repositories of the New Brunswick Department of Natural Resources. Core reduction is done on a systematic basis with reference to regular intervals in some cases, so that cored sections of

4. Dans un grand nombre de dépôts où les carottes de sondage proviennent en général de sociétés minières, les matériaux du sous-sol sont de nature confidentielle tant que les propriétés demeurent en règle. Toutefois, dans le cas de certains dépôts, les matériaux qui y sont entreposés sont gardés sous le sceau du secret pour des périodes déterminées. Par exemple, cette durée peut aller jusqu'à 90 jours en Ontario et jusqu'à trois ans dans le Territoire du Nord-Ouest, et à Terre-Neuve et au Labrador. Dans d'autres dépôts, seuls les matériaux non confidentiels sont en général acceptés aux fins d'entreposage, bien que la confidentialité puisse être accordée à un donneur qui en fait la demande. Il en est ainsi au Québec où un donneur peut obtenir que la cote confidentielle soit accordée à une carotte pour un an, après quoi, cette cote peut être renouvelée. Toutes les données concernant les carottes de certaines successions qui renferment de la potasse doivent demeurer confidentielles à perpétuité, au dépôt de Regina du Saskatchewan Department of Energy and Mines. Pour ce qui est des carottes et des déblais qui sont récupérés des puits forés aux fins de la recherche et de la mise en valeur des hydrocarbures, la durée de la cote confidentielle est fonction de la classification du puits et de l'autorité fédérale ou provinciale qui a compétence relativement au chantier de forage. En ce qui concerne les terres fédérales (sur terre et en mer), les données sur les matériaux extraits des puits d'exploration sont confidentielles pour deux ans et celles qui concernent les matériaux extraits des puits de délimitation le sont pour 60 jours. Les puits de recherche forés dans les terres provinciales portent la cote confidentielle pour un an; les puits de délimitation en Alberta pour 60 jours, et pour 30 jours en Saskatchewan et en Ontario. Pour ce qui est de la plupart des carottes et des échantillons de sédiments friables, le public peut les examiner si les chercheurs pour le compte desquels ils ont été prélevés le permettent. Les besoins internes des dépôts sont comblés avant que les matériaux puissent être examinés par les chercheurs de l'extérieur, bien qu'il n'y ait pas de durée fixe de confidentialité.

5. Les utilisateurs doivent verser une somme qui est fonction de la quantité et du type de matériaux du sous-sol examinés, à trois des dépôts provinciaux qui renferment d'importantes acquisitions provenant de l'industrie pétrolière, soit les dépôts situés à Fort St. John, Calgary et Regina. Une liste de tarifs s'appliquant aux installations de stockage de carottes (Phanérozoïque) du Manitoba Department of Energy and Mines à Winnipeg est en voie de préparation, et il se peut également que le Nova Scotia Department of Mines and Energy à Stellarton en établisse une. Dans la plupart des dépôts de carottes de sondage, le repérage et la récupération des matériaux du sous-sol et l'utilisation des installations d'examen sont gratuits. Il en va autrement à l'Oil Sands Sample Bank de l'Alberta Research Council à Edmonton où les utilisateurs doivent acheter, à des prix fixes, les matériaux qu'ils veulent examiner.

6. Étant donné le manque d'espace d'entreposage, 12 des 40 installations actuellement exploitées ne peuvent recevoir qu'une certaine proportion de chaque carotte. Ces dépôts renferment en général des carottes données par des sociétés minières, et cinq d'entre eux appartiennent à des organismes provinciaux: le Mineral Exploration Sample Storage Facility de l'Alberta Geological Survey à Edmonton, le Precambrian Geological Laboratory du Saskatchewan Department of Energy and Mines à La Ronge, le dépôt de carottes prélevées par forage au diamant du ministère des Richesses naturelles de l'Ontario, les installations de stockage des carottes de sondage du ministère de l'Énergie et des Ressources du Québec et les dépôts de Sussex et de Fredericton du ministère des Ressources naturelles du Nouveau-Brunswick. La réduction des carottes se fait de façon systématique et à intervalles réguliers dans certains cas, de sorte que les tronçons de carottes de priorité relativement peu élevée sont

relatively low priority are condensed to 20 per cent at the Edmonton facility, to 10 per cent in the Québec repositories and to 5 per cent at the La Ronge laboratory. At all core-storage facilities with a policy of data reduction, lithologic contacts are preserved and mineralized sections are retained. At the Stellarton repository of the Nova Scotia Department of Mines and Energy and the Yellowknife facility of Indian and Northern Affairs Canada, there are no reduction policies at present, although there are plans to retain only condensed cores in the future. It is clear that data reduction involving retention of only representative lithologies has the effect of restricting the scope of research techniques which may be adopted in any related study. A different approach to data reduction is taken at the Petroleum Resources Laboratory of the Ontario Ministry of Natural Resources where continuous cored sections are stored as slabs and wedges, the limiting sizes of which are determined on the basis of the original core diameter. Likewise, the Newfoundland and Labrador Petroleum Directorate requires that companies supply not less than one-third of the cross-sectional area of each core for storage at the Torbay repository, although the cores retained are continuous.

7. Examination facilities are available at all but five of the core repositories in operation. Laboratory space, commonly in a heated area, as well as examination tables, a water supply and electricity are made available for users at most core-storage facilities. The most extensive examination facilities are those of the Energy Resources Conservation Board's Core Research Centre in Calgary which include core tables in both open areas and confidential rooms, research cubicles for examination of drill cuttings, a seminar room, specially designed sinks, a ventilated acid-storage cabinet, and equipment-storage lockers. In addition, 19 repositories have one or more microscopes for use by visitors. However, many agencies operating core-storage facilities require that visitors provide their own equipment for examination of cores.

8. Sampling of nonconfidential subsurface materials in storage for research purposes is allowed at most Canadian core repositories although the conditions for granting of permission to sample show considerable variation. Most agencies operating core-storage facilities require that all requests to sample cores be submitted in writing with detailed information on the research need for the samples and the analytical approach to be employed. The written requests are considered by the laboratory supervisor or geologist-in-charge who may require consultations with the applicant as to the size of each sample to be taken. At many repositories, permission to sample cores is granted on the condition that the repository will receive a copy of all research results. Some agencies also impose the condition that all residual materials remaining after analysis of a sample must be returned to the repository. In some core-storage facilities, permission to sample cores must be obtained from the donating company, as well as from the appropriate government agency. At some repositories, such as the Core Laboratory at Fort St. John, British Columbia, a limiting size is set on all samples taken from cores, whereas at other facilities, restrictions in the sampling density are related to the small core diameter and to the approach to data reduction. The Soils and Minerals Laboratory of the New Brunswick Department of Natural Resources at Fredericton imposes a different kind of restriction on sampling in that the specimens for research may be taken only from previously unsampled cores. The regulations of some core-storage facilities require that only repository staff may operate rock saws to supply visitors with their requested samples.

réduites à 20 pour cent à installation d'Edmonton, à 10 pour cent dans les dépôts du Québec et à 5 pour cent au laboratoire de La Ronge. Tous les dépôts qui pratiquent la réduction des données conservent les zones de contact lithologique et gardent les sections de carottes minéralisées. Au dépôt de Stellarton du Nova Scotia Department of Mines and Energy à l'installation de Yellowknife du ministère des Affaires indiennes et du Nord, il n'y a aucun programme de réduction en ce moment, bien que l'on projette de ne garder que les carottes de dimensions réduites à l'avenir. Il ne fait aucun doute que si l'on réduit les données pour ne garder que des formations types, la portée des techniques de recherche qui pourront être appliquées dans des études connexes sera limitée. Le laboratoire des ressources en hydrocarbures du ministère des Richesses naturelles de l'Ontario procède autrement: les sections de carottes en continu sont entreposées sous formes de plaquettes et de coins dont les tailles sont déterminées en fonction du diamètre de la carotte originale. De même, le Newfoundland and Labrador Petroleum Directorate exige que les sociétés fournissent au moins le tiers de la coupe transversale de chaque carotte aux fins d'entreposage au dépôt de Torbay, bien que les carottes gardées aient été prélevées en continu.

7. Il y a des installations d'examen à tous les dépôts de carottes de sondage, à l'exception de cinq. La plupart des dépôts mettent à la disposition des utilisateurs une aire pour travaux de laboratoire qui est habituellement chauffée, des tables, de l'eau et l'électricité. Les installations d'examen les plus importantes sont celles du Core Research Centre de l'Energy Resources Conservation Board, à Calgary: elles comprennent des tables en aires ouvertes et fermées, des cabines spécialement aménagées pour l'examen des déblais de forage, une salle de conférence, des éviers expressément conçus, une armoire de rangement des acides pourvue d'un système de ventilation et des casiers pour ranger le matériel. De plus, 19 dépôts ont au moins un microscope que les visiteurs peuvent utiliser. Toutefois, nombre d'organismes demandent aux visiteurs d'apporter leur propre matériel pour l'examen des carottes.

8. On peut faire l'échantillonnage des matériaux du sous-sol qui sont de nature non confidentielle et qui sont entreposés dans la plupart des dépôts du Canada, bien que les conditions autorisant cet échantillonnage varient grandement. Ainsi, la plupart des organismes qui exploitent des dépôts de carottes de sondage exigent que les utilisateurs en fassent la demande par écrit, expliquant en détail le but de leurs recherches et les moyens analytiques qu'ils entendent utiliser. Les demandes sont examinées par le superviseur du laboratoire ou par le géologue en chef qui peut demander à consulter le demandeur quant à la taille de chaque échantillon. De nombreux dépôts permettent d'échantillonner les carottes à condition de recevoir les résultats de toutes les recherches. Certains organismes exigent également que tous les matériaux qui restent après l'analyse des échantillons soient retournés au dépôt. Dans certaines installations, la permission d'échantillonner les carottes doit être obtenue de la société qui les a données, ainsi que de l'organisme gouvernementale concerné. Dans certains dépôts, tels que le Core Laboratory, à Fort St. John, en Colombie-Britannique, une taille maximale est déterminée relativement aux échantillons prélevés sur les carottes, alors qu'à d'autres installations, les restrictions quant au volume des échantillons sont fonction du petit diamètre des carottes et du programme de réduction des données. Le laboratoire des sols et des minéraux du ministère des Ressources naturelles du Nouveau-Brunswick, à Fredericton, impose un autre genre de restriction, à savoir que des échantillons peuvent être prélevés aux fins de recherches uniquement sur les carottes n'ayant fait l'objet d'aucun échantillonnage. Les règlements de certains dépôts prévoient que seul le personnel du dépôt peut utiliser les scies afin de fournir aux visiteurs les échantillons qu'ils demandent.

9. Company and government core logs are available at many core-storage facilities and take on particular importance for cored sections that have undergone reduction. Data obtainable for wells with cores supplied by companies engaged in petroleum exploration and development, include geophysical well logs, petrologic and geochemical analyses, core analyses, fluid analyses, results of drill stem tests, and petroleum-production data. However, this information is usually made available to the public by a government agency, specializing in the storage and retrieval of geological data. Assay results and assessment files are commonly available for cores supplied to repositories by mining companies. Most provincial and federal agencies publish as a service to industry research reports based on the study of subsurface materials by government scientists and engineers. These reports commonly include lithologic descriptions of selected cored sections held in storage at government repositories.

10. The network of core-storage facilities and related information services, operated by provincial and federal agencies in Canada, permit ready public access to subsurface materials from onshore and offshore wells, drilled for a wide variety of geological and engineering purposes. Increasing use of computer-based indexing systems by these agencies for the storage and retrieval of data on repository holdings presents the possibility of computer linkages between core-storage facilities over wide areas to facilitate formulation of regional strategies for resource development and environmental management. The value of the contribution made by these facilities towards future realization of the nation's mineral-resource potential is inestimable.

9. Les rapports de sondage des sociétés et des gouvernements peuvent être obtenus de plusieurs dépôts et revêtent une importance particulière dans le cas des tronçons de carottes qui ont été réduits. Parmi les données sur les puits dont les carottes proviennent de sociétés s'occupant de la recherche et de la mise en valeur des hydrocarbures, on compte notamment des diagrammes géophysiques, des analyses pétrographiques et géochimiques, des analyses de carottes et des analyses de fluides, des résultats d'essais aux tiges et des données sur la production d'hydrocarbures. Toutefois, cette information est généralement communiquée au public par un organisme gouvernementale qui se spécialise dans le stockage et la récupération des données géologiques. Pour ce qui est des carottes provenant des sociétés minières, on peut habituellement obtenir les résultats des essais et les dossiers concernant l'évaluation. La plupart des organismes provinciaux et fédéraux publient, à l'intention de l'industrie, des rapports de recherche fondés sur l'étude des matériaux du sous-sol exécutée par les ingénieurs et les scientifiques des gouvernements. Ces rapports comprennent habituellement la description lithologique de tronçons de carottes sélectionnés dans les dépôts gouvernementaux.

10. Le réseau des dépôts de carottes de sondage et les services d'information connexes qui sont gérés par les organismes fédéraux et provinciaux au Canada permettent au public de se renseigner facilement sur les matériaux du sous-sol récupérés des puits de forage sur terre et en mer pour de nombreuses raisons géologiques et techniques. L'utilisation accrue des répertoires informatisés aux fins de stockage et de la récupération des données concernant les collections des dépôts rend possible les liaisons par ordinateurs entre les dépôts éloignés les uns des autres afin de faciliter la formulation de stratégies régionales aux fins de gestion environnementale et de mise en valeur des ressources. La contribution de ces installations à l'exploitation future des ressources minérales possibles du territoire canadien est inestimable.

A USERS' GUIDE TO CORE-STORAGE FACILITIES IN CANADA

Abstract

Nearly 3 x 10^6 m of continuous cored sections and rock specimens, representing reduced cores from boreholes, drilled in the land and offshore regions of Canada, are stored with drill cuttings and other subsurface materials in 40 government-operated repositories, to which public access is granted for examination of nonconfidential data. Provincial-government departments, which administer the acts controlling exploration for and development of mineral resources, operate 33 of these core-storage facilities, whereas subsurface materials from Canada Lands (onshore and offshore) are stored in four other repositories. Additional core storage facilities are planned for Manitoba, Ontario, and Québec. Soft-sediment cores from the Canadian offshore make up the holdings of two more facilities under federal jurisdiction and similar materials from the Canadian part of the Great Lakes are stored at an additional federal facility. Cores recovered by the Deep Sea Drilling Project from drill sites in the near Canadian waters are held in two United States repositories.

The 40 repositories are described in detail including information on the materials available for study, the examination facilities and any restrictions on public access to subsurface data. The detailed descriptions are summarized in English and in French in tabular form and an extended summary in both languages is provided.

Résumé

Environ 3 x 10^6 m des carottes en continu et des échantillons de roches ont été recueillis dans des trous de sonde forés sur terre et en mer, au Canada, et stockés, en même temps, que des déblais de forage et d'autres matériaux du sous-sol, dans 40 dépôts gérés par le gouvernement; le public y a accès pour examen des données non confidentielles. Les ministères provinciaux, qui appliquent les lois régissant la recherche et la mise en valeur des ressources minérales, maintiennent en service 33 de ces dépôts, alors que les matériaux du sous-sol provenant des terres du Canada (sur terre et en mer) sont gardés dans quatre autres dépôts. Des installations additionnelles sont prévues pour le Manitoba, l'Ontario et le Québec, aux fins du stockage des carottes. Deux autres dépôts de compétence fédérale reçoivent les carottes de sédiments friables prélevées dans la région offshore du Canada, et des matériaux semblables qui proviennent de la partie canadienne des Grands Lacs sont stockés dans une autre installation fédérale. Les carottes récupérées par le Deep Sea Drilling Project aux chantiers de forage situés dans les eaux canadiennes ou à proximité sont gardées dans deux dépôts des États-Unis.

Les 40 dépôts sont décrits en détail, notamment les matériaux qui y sont disponibles aux fins d'études, les installations d'examen des matériaux et les conditions régissant la consultation publique des données sur les matériaux du sous-sol. Les descriptions détaillées sont résumées en anglais et en français sous forme de tableaux et un résumé étoffé est présenté dans les deux langues officielles.

INTRODUCTION

Cores and drill cuttings from wells, drilled in exploration for and development of mineral resources and as stratigraphic test holes, are available for examination by the public in government-operated repositories at 40 locations across Canada (Fig. 1). Of these, 33 are maintained by the provincial-government departments which administer acts and regulations designed to control drilling activity by private companies and the release of subsurface data. Each province maintains at least one repository as a service to private industry and to the public in general and seven provinces have two or more core-storage facilities. Furthermore, additional facilities are being planned in Manitoba, Ontario and Québec at this time. Subsurface materials from Canada Lands (Yukon, the Northwest Territories and the Canadian offshore) are stored in four repositories. These are the H.S. Bostock Core Library in Whitehorse and the C.S. Lord Core Library in Yellowknife, both operated by Indian and Northern Affairs Canada (INAC) as repositories for cores from holes drilled by mining companies at onshore locations in Yukon and the Northwest Territories respectively; the Core and Sample Repository of the Institute of Sedimentary and Petroleum Geology in Calgary, operated by the Geological Survey of Canada (GSC) as the repository for cores and drill cuttings from onshore and offshore wells north of Latitude 60°N and from Pacific offshore wells; and the core-storage facility of Canada Oil and Gas Lands Administration (COGLA) at the Bedford Institute of Oceanography at Dartmouth, where cores and drill cuttings from wells in federal lands in the Atlantic offshore, the Hudson Bay and Hudson Strait regions and the eastern Arctic offshore are stored. In addition, soft-sediment cores are stored in three federal repositories: EMR's Pacific Geoscience Centre in Sidney, near Victoria, where the repository falls under the jurisdiction of the Cordilleran Geology Division of GSC; the Canada Centre for Inland Waters in Burlington, operated by the Department of the Environment and the Department of Fisheries and Oceans; and the Atlantic Geoscience Centre (GSC) at the Bedford Institute of Oceanography, Dartmouth, where the repository is the responsibility of the Department of Energy, Mines and Resources.

In an account of five government-operated core- and sample-storage facilities in western Canada, Pow (1969) discussed the advantages of centralized storage of subsurface materials, as well as problems inherent to repository operation. He also provided a brief description of the services offered by individual, western Canadian repositories.

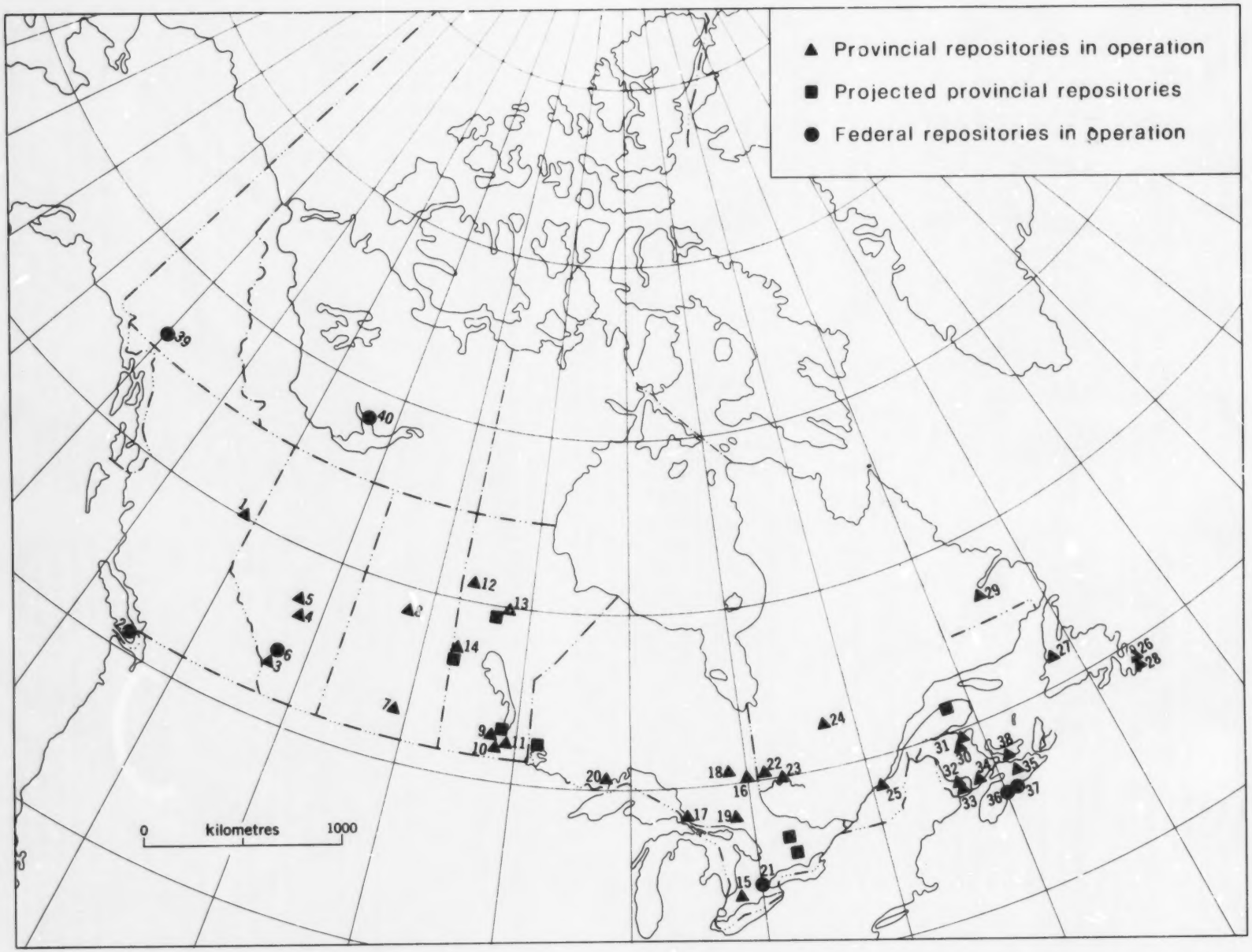

Figure 1. *Distribution of core-storage facilities in Canada. Core-storage facilities are designated by means of repository reference numbers given in Appendix 2.*

Fisher and Krupa (1977) commented on the comprehensive nature of regulations for the the preservation of subsurface materials in the western Canadian repositories as resulting in availability of data, which is "unsurpassed on the North American Continent." They also outlined facilities for the examination of cores and drill cuttings at a total of 12 government-operated repositories in Canada: in Alberta (2), Manitoba (1), New Brunswick (3), Newfoundland (3), Ontario (1), Québec (1) and Saskatchewan (1). A recent paper by Doyle (1983) described the collection program of the Geoscience Data Section of the Manitoba Department of Energy and Mines, aimed at preserving diamond drill cores from holes drilled on the Precambrian Shield, and outlined the present holdings of core libraries at The Pas, Lynn Lake, Thompson and Winnipeg. Simpson (1982) described the holdings and facilities available to users at six core repositories in the United Kingdom and the Republic of Ireland. In addition, he considered the main European repositories, which house collections of cores and drill cuttings from wells in neighbouring parts of the North Sea. The results of that study lend themselves to direct comparison with those reported in the present account, since the same questionnaire was employed in the collection of data. The comments on availability of marine and lacustrine, soft-sediment cores for examination by the public should be considered in the context of the overview of Marine Geoscience in Canada, recently provided by Johnson et al. (1983) to highlight the current activities of government, universities and private industry in this field.

This report is a guide to government-operated core repositories in Canada. The main objective is to aid potential users of these facilities by providing information on the subsurface materials and related data available for study and the examination facilities at the repositories, as well as existing restrictions on public access to subsurface data. In addition to the 40 provincial and federal facilities described in detail, information is given about seven projected provincial repositories, currently in different stages of planning and construction. Also provided is a brief discussion of the temporary storage of cores by the Engineering and Terrain Geology Section of the Ontario Geological Survey and Ontario Hydro respectively. The deep-sea cores recovered by the Deep Sea Drilling Project (DSDP) from drill sites in and near Canadian waters are stored in two United States repositories and the examination facilities of these and regulations pertaining to use of them are also outlined.

The data on core storage presented in this report come from copies of a questionnaire completed by officials in charge of the repositories under consideration. The questionnaire titled, Questionnaire on storage of cores from wells drilled in Canada, is essentially the one employed by the author in a study of core-storage facilities in the British Isles and Republic of Ireland (Simpson, 1982). It was designed to standardize information on storage and retrieval of well data (Appendix 1) and consisted of 25 questions, aimed at optimizing use of core-storage facilities in studies based on subsurface data. The questions were arranged into four sections: 1) general information on data acquisition, 2) utilization of storage space, 3) core-examination facilities, and 4) public access to other subsurface data on file. Sections 1 and 2 are for the most part concerned with the types of subsurface materials available and conditions of storage, whereas Sections 3 and 4 mainly have to do with the accessing and retrieval of subsurface materials, examination facilities, and availability of supporting data. The core-storage facilities described in this report are listed in Appendix 2, together with the sources of the holdings and addresses of the corresponding parent organizations.

GENERAL PERSPECTIVES ON CORE STORAGE

Some of the main advantages related to the establishment of government-operated, centralized repositories for cores and other subsurface materials donated mainly by private companies, were outlined by Pow (1969) as follows:

1. Examination time in a given research project is reduced to a minimum by elimination of the need for a geologist to visit a number of core-storage locations, where he would have to manually lay out the cores for study.
2. Public access to cores is assured from the date of expiry of confidential status, when they are stored in a government-operated facility.
3. The possibility of loss, deterioration, or destruction of cores is virtually nonexistent for storage in a centralized repository dedicated to making subsurface materials available to the public.
4. Fully mechanical, core-storage operations facilitate the flow of information as a result of their high efficiency.

Simpson (1982) remarked on the fact that lithologic descriptions of the same cored section are likely to differ significantly according to the relative importance assigned to particular attributes and characteristics of the rocks and depending on the purpose of the investigation. This is most clearly seen when descriptions of cores, logged for engineering purposes (Geological Society Engineering Group Working Party, 1970, 1977), are compared with logs, made by a worker with an exclusively geological background. As noted by Simpson (1982), it is not possible to devise a format for comprehensive core description which completely satisfies the multiple objectives of a drilling program in the short term and this provides a strong case for the long-term storage of cores. This line of reasoning gives strong support to the preservation of continuous, cored sections, wherever possible.

The survey of North American core repositories by Fisher and Krupa (1977) revealed that full-length cores are not usually retained because of handling, processing, and maintenance costs and difficulties related to the limited availability of storage space. Instead, a given cored section is represented by core chips, in the order of 0.5 inch in diameter, taken at 1-foot intervals along the full lengths of the core. The authors note that the core chips lend themselves to no more than generalized description of lithologies and stress the need for storage of continuous cored sections, notably with reference to the laboratory tests aimed at evaluating hydrocarbon recovery. In the present account, details are presented about approaches to the reduction of cores in 12 of the 40 Canadian repositories currently in operation. These core-storage facilities contain mainly materials supplied by mining companies and are referable to five provincial agencies: the Mineral Exploration Sample Storage Facility of the Alberta Geological Survey at Edmonton, the Precambrian Geological Laboratory of Saskatchewan Energy and Mines at La Ronge, the diamond drill core libraries of the Ontario Ministry of Natural Resources, the core-storage facilities of the Ministère de l'Énergie et des Ressources du Québec, and the Sussex and Fredericton repositories of the New Brunswick Department of Natural Resources. Core reduction is carried out systematically with reference to regular vertical intervals in some cases; for example, cored sections of low priority are condensed to 20% at the Edmonton facility, to 10% in the Québec repositories, and to 5% at the La Ronge laboratory. At all core-storage facilities with a policy of data reduction, are retained. At the Stellarton repository of the Nova Scotia

Department of Mines and Energy and the Yellowknife facility of Indian and Northern Affairs Canada, there are no reduction policies at present, although there are plans to retain only condensed cores in the future. Clearly these approaches to data reduction impose severe restrictions on the types of research techniques which may be employed in studies of the materials in storage.

Fisher and Krupa (1977) proposed the establishment by the United States Geological Survey of a nationwide system for the preservation and cataloguing of subsurface materials, involving coordination of an inter-connecting, computerized information file on available cores and drill cuttings. The Ontario Ministry of Natural Resources has designed a computer-based indexing system for storage and retrieval of data on the holdings of its diamond drill core libraries. Apple IIe microcomputers are currently in use and there are plans to set up computer linkages between the repositories and the main office in Toronto. Computer files of repository holdings are in use by the Atlantic Geoscience Centre of GSC, the Alberta Geological Survey, Saskatchewan Energy and Mines, and the Pacific Geoscience Centre whereas such files are being developed by the Ministère de l'Énergie et des Ressources du Québec and are planned by the Energy Resources Conservation Board of Alberta, the Manitoba Department of Energy and Mines, and the Nova Scotia Department of Energy and Mines. Thus, the utilization of computer-oriented data systems by six provincial governments and two federal agencies will ensure optimized use of core-storage facilities, accounting for the major proportion of the holdings in Canadian repositories. The possibility of linkages between these and additional, computer-based indexing systems which may be established in the future by other government agencies, could take on considerable importance in the formulation of regional strategies with regard to exploration for the development of mineral resources. The wealth of subsurface data, represented by the holdings of Canadian core-storage facilities, will benefit society by serving the information needs of private companies engaged in a variety of mineral-resource ventures:

1. in more southerly, landward locations with high concentrations of subsurface data, which diminish with increase in depth below surface;
2. in more northerly, landward, as well as all offshore locations, characterized by relative sparseness of control points, regardless of the depth of drilling targets;
3. in geologic settings, which have assumed increased economic potential, as a result of changes in exploration philosophy as witnessed, for example, in prospecting for economic accumulations of uranium minerals and gold;
4. in locales, characterized by the occurrence of resources, which have been regarded in the past as subeconomic, for example, shallow natural-gas occurrences under low pressure in low-permeability, shaly sandstones; and
5. in settings of development drilling, where known hydrocarbon reserves are amenable to increased production by means of improved techniques of enhanced recovery, as in the heavy-oil pools of Alberta and Saskatchewan.

CURRENT STATUS OF CORE STORAGE IN CANADA

General Remarks

Data on Canadian core-storage facilities are presented in the following pages by province. Provincial- and federal-operated repositories with holdings obtained from private companies and government agencies, for the most part concerned with the location of mineral resources, and federal facilities for the storage of marine and lacustrine soft-sediment cores and samples are discussed in that order. The format adopted for the description of each core-storage facility is:

1. the nature and origin of subsurface materials in storage and regulations, pertaining to the duration of confidential status;
2. the conditions of storage, documentation of repository holdings and approach to accessing of specific subsurface materials;
3. the repository support staff and their responsibilities, as well as the examination facilities and various regulations with regard to the public use of them;
4. other services to the public, such as petrologic/geochemical analyses, core analyses, fluid analyses and assays.

Public access is not normally granted to the core repositories of private companies and these are for the most part not considered in the present account. Some general remarks are made on the subject of core storage by private companies for other industrial operators, in so far as these organizations offer interesting insights into special conditions of storage, seldom encountered in government-operated repositories. Many universities have core collections and public access for research purposes is generally possible. For example, in the Subsurface Geological Laboratory of the University of Windsor, about 3100 m of cores representing 150 wells drilled mainly in southwestern Ontario are stored in an area of 53 m^2, adjacent to a well equipped examination area of comparable size. Further discussion of core storage at Canadian universities is beyond the scope of the present account.

British Columbia

Ministry of Energy, Mines and Petroleum Resources Core Laboratory, Fort St. John

The provincial core laboratory in Fort St. John is maintained by the Ministry of Energy, Mines and Petroleum Resources. It houses 68 691 m of core, representing 5 850 wells drilled by petroleum and mining companies in British Columbia. Complete cores are retained in the repository, since there is no policy of data reduction. Drill cuttings are available for examination; sidewall cores, wireline cores and test hole samples are also stored.

The design of the core laboratory is based on that of the Subsurface Geological Laboratory in Regina, operated by Saskatchewan Energy and Mines. The core-storage area occupies 2230 m^2 of the laboratory. The core collection is in 45 073 boxes, stored on metal racks, so that each bay holds 3 stacks of core boxes, each 7 boxes high. The core-storage racks are 5 bunks high, holding 35 stacked boxes, 4.1 m high. The core boxes have unique reference numbers, in each case comprising the well authority number, the core number and the box number. All cores and drill cuttings are indexed and filed by well authority number. Glass vials containing drill cuttings are stored in 201 m^2 of the laboratory.

The support staff of three receives cores and drill cuttings submitted by private industry. All cores are delivered in wooden boxes and are stored in the same way. The responsibilities of the support staff include the washing, drying, and bottling of cuttings, as well as the keeping of records, filing and indexing of all holdings. The core examination area is 110.6 m^2. Cores are retrieved by means of two fork lifts and may be examined on five core tables, each of which is 6.1 m long. In addition, there are six work

tables, which may be used for microscope studies. Sinks with hot and cold water and a gas supply for a burner are also available. The examination facilities are open to the public Monday through Friday, from 08:30 to 12:00 and 13:00 to 16:30. Fees charged for use of the repository are: $40.00 per well for all cores examined and $20.00 per day (per geologist) for use of drill-cutting examination facilities. Visitors are advised to contact the Ministry of Energy, Mines and Petroleum Resources to arrange an appointment. Permission to slab cores must be obtained from the Ministry and the appropriate industrial operator.

There is no computerized storage/retrieval system for the subsurface data held on file. Some petrologic and geochemical analyses of cored lithologies, core analyses and fluid (water and hydrocarbon) analyses and all drill stem tests are available for consultation by the public, if released from confidential status. All petroleum-production data may also be obtained.

Pacific Geoscience Centre, Sidney

Cores of soft sediment from coastal waters and the continental shelf and slope off the west coast of Canada are stored at the Pacific Geoscience Centre, which is one of the laboratories of the Institute of Ocean Sciences at Patricia Bay, Sidney, on Vancouver Island. The Institute incorporates laboratories, operated by three federal departments: the Department of Fisheries and Oceans; the Department of Energy, Mines and Resources; and Environment Canada. The soft-sediment cores of the Pacific Geoscience Centre are under the jurisdiction of the Cordilleran Geology Division of the Geological Survey of Canada (Pacific Marine Geology Subdivision). They are mainly gravity cores collected since 1973. The holdings of the Centre consist of 450 cores from 450 sample sites, with lengths of cored sections ranging from 1 m to 10 m. Each core is split longitudinally into a working half and an archiving half; all destructive subsampling is generally restricted to the working half. Permission to examine cores is generally granted upon submission of a written request by the intending user, provided time can be found in the work schedule of the Sedimentary Laboratory Supervisor. There is no confidentiality period of standard duration, but the written request to examine materials must be reviewed by the head of GSC at the Pacific Geoscience Centre and approved by the scientist, for whom the samples were taken.

The room-temperature storage area is about 5 m by 28 m, whereas the cold storage area is approximately 3 m by 7 m. All cores are stored in D-tubes with damp sponges at either end for wet-sediment cores; D-tubes without sponges are employed for dry half-cores. The cores are kept in sections, less than 2 m in length. Sample designations include a code for the ship from which the sample was taken, or the geographical region, plus the year the consecutive number. All samples are indexed as entries into the SEDFUL computer program by sample number, location, date, type and other pertinent data. The examination area is about 3 m by 2 m and the physical retrieval of cores is carried out by hand. Laboratory space can be made available to visitors, but only at non-peak periods of the year. The above-mentioned facilities of the Centre are open to the public only with prearranged authorization and supervision. The purpose of any subsampling of core materials and the quality of sediment required must be specified in the initial written request, so as to be considered in the approval of the project. In general, data of the Centre are available to, but not readily accessible to the public. There is no fee structure for public use of the Centre's facilities.

Alberta

Core Research Centre of Energy Resources Conservation Board, Calgary

The Core Research Centre in Calgary operated by the Geology Department of Alberta's Energy Resources Conservation Board (ERCB), houses the nation's largest collection of subsurface materials: the core repository contains approximately 1 000 000 m of core and the drill-cutting library comprises about 8 000 000 sample vials, representing in the order of 24 000 000 m drilled. Under Alberta Oil and Gas Conservation Regulations, all cores and drill cuttings from petroleum exploration and development wells drilled in the Province, must be submitted to the Centre for storage. Materials from test holes and from evaluation drilling aimed at the oil sands and coal-bearing strata, are also stored. Some of the wells represented were drilled in the late nineteen-twenties. The core collection includes sidewall cores and tri-core strips. Complete cores are stored in the repository; no reduction of material is carried out at present and none is planned for the future. All materials with confidential status are available only to representatives of, or persons producing a written release from the licensee of the well. The normal period of confidentiality is one year from the finished-drilling date of a given well.

The area of the core repository is 10 900 m^2, half of which is filled with cores, stored to a height of 4.3 m, whereas the remaining half is only partly filled and provides storage to a height of 8.6 m. The drill-cuttings and drilling-report libraries have areas of 980 m^2 and 490 m^2 respectively. The cores are stored on steel racks and are serviced by six electric order pickers, operating on an electronic wire-guidance grid system in the floor. The core boxes used are covered, corrugated cardboard cartons (regulated), containing an average of 1.4 m of core in two rows. Minor amounts of core, specially selected by the licensee, are stored in plastic sealing compound. The drill cuttings are in 2-dram glass vials stored 60 per plastic tray on metal shelves which are located on the second floor above the research area. In the latter case, service is effected by means of an elevator. All materials are accesed with reference to a unique well identifier; storage addresses are by sequentially coded rack locations. The holdings of the facility are documented on a manual card system. Computerized records are planned for the future. There is no published index of holdings, but area lists are prepared on request.

The Centre is headed by the Manager (Geology Department), an Administrator and a Superintendent, assisted by a Supervisor of Service, a Supervisor of Repositories and a Supervisor of Operations, with a staff of 35, comprising core handlers, sample processors, and clerks. The geological staff of ERCB provides more specialized, professional support. Cores may be examined on special tables in open areas and in confidential rooms for individuals and for groups in conference. The total area for core research is 1205 m^2 consisting of eight open areas, each of 113.6 m^2, and eight confidential rooms, each of which has an area of 37 m^2. Drill cuttings and drilling reports are available for examination at the core tables or in semi-private cubicles. The area for study of drill cuttings and daily drillings reports amounts of 135 m^2. There is also a seminar room for up to 24 persons and a large lounge area. Cores are retrieved manually and returned to storage by operators using "order-picker" fork trucks extending up to 9 m in height on an electronic wire-guidance grid system in the floor. Full service is provided at the Centre for 08:00 to 16:00 hours on weekdays, except on holidays. Patrons "sign in" and "sign out" on an

invoice form. Orders for materials are submitted to the service office on "Patron Service Request" forms. A "Sampling Memorandum" must be completed when the removal of core material is proposed. All removal of core material must be approved and supervised. Slabbing requires the additional approval of the licensee. In general, only the minimum amount of material necessary to conduct the proposed tests may be taken. All of the material, which has not been substantially altered during testing, must be returned. Drill cuttings may not be removed from the Centre.

The research facilities of the Centre comprise a total of 60 core tables: 48 in open areas and 12 in confidential rooms. There are 50 research cubicles for examination of drill cuttings. Also available are three specially designed sinks, a ventilated acid-storage cabinet, 93 equipment-storage lockers and 10 free telephone booths. Other items for the use of patrons are indicated in the 1983 Schedule of Fees for Core Research Centre facilities (Table 1). Core analyses, fluid (water and hydrocarbon) analyses and data from drill stem tests, as well as petroleum-production and general reservoir data, are available from the ERCB Records Centre, 640 - 5th Avenue S.W., Calgary, Alberta T2P 3G4.

Mineral Exploration Sample Storage Facility of Alberta Geological Survey, Edmonton

The Alberta Geological Survey, a department of the Alberta Research Council, established its Mineral Exploration Sample Storage Facility in 1979 to serve as a repository for cores, retrieved in mineral-exploration ventures throughout the province. Funding for the facility is through the Alberta Energy and Natural Resources Department which is the regulatory body for the Quartz Mineral Act in Alberta. The facility currently contains 8891 m of core representing 92 exploration holes drilled during the course of uranium exploration in the Alberta part of the Athabasca basin. Private companies are required to split each core longitudinally and supply half of this material for storage by the Survey. In general, each cored section is stored in

Table 1. Facilities, services and fee schedule (1983) of the ERCB Core Research Centre, Calgary

	Fee	Minimum Charges
Research Facilities – half day charges		
Cubicle (drill cuttings)	$ 8.00	
Open table (core)	17.00	
Confidential table	23.00	
Conference room	30.00	
Seminar room	40.00	
Service		
Drill cuttings samples	0.90/tray	
Cores	0.90/box	
Tours	3.00/well	
Copying	0.30/page	
Labor and clerical	12.00/hour	$ 3.00
Core cutting		
1. longitudinal slab	10.00/metre	15.00
marked C.R.C. style trays	3.50/each	
marked C.L. style trays	7.00/metre	
2. sample cutting	23.00/hour	10.00
3. plug drilling	29.00/hour	10.00
Core Loan		
sign out	23.00/well	
service charge	0.90/box	4.00
day charges (to 3:30 pm)		
2 days	No day charges	
3 days	23.00	
over 3 days	23.00/half day	
Rentals		
Equipment storage lockers	6.00/week or portion	
unlocking locker for patron	2.00/each occurrence	
lost key charge (lock replacement)	30.00	
Microscope	4.00/half day	
Microscope lamp	1.00/half day	
Camera and lights	5.00/half day	
Drill Cuttings Collection Bags		
Purchase price	15.00/100	

its entirety. However, cores from some areas of high drilling density have been condensed to approximately 20 per cent. Some of the cores held in the facility are from drilling operations, carried out during the mid-nineteen-seventies. Cores from holes drilled on mineral permits remain confidential for a period of one year after drilling was completed. When a permit is taken to lease, confidentiality is extended for a further four years, provided that the lease does not lapse during this time.

The storage area of the facility occupies 93 m^2. Cores are in cardboard boxes which are each 76.2 cm long. The boxes are stored on shelves to a height of 3 m with a distance of 1 m separating adjacent shelves; 18 to 35 boxes are stacked on each shelf, depending on core size. Each core box has a call number, assigned by the Alberta Geological Survey. The holdings of the repository are indexed on a computerized filing system. In the future, lithologic logs of cored sections in storage will be accessed by computer.

The support staff of the repository consists of one professional geologist, engaged in research on the cores, as well as technical assistance which is available as needed. Cores are examined in two rooms, each 5 m by 3 m; warehouse space may also be used for core investigations, if required. The core examination facilities consist of six metal tables, each measuring 2.1 m x 0.8 m (three per examination room), two sinks and a binocular microscope. The cores are retrieved and made available to visitors on wheeled carts. No fees are charged to users of the facility which is open to the public from 08:00 to 17:00 hours on weekdays, all year round. Extensive sampling of cores is not permitted because of the small size of core segments in storage. Other subsurface data to which public access is granted are mineral assessment files of company reports, available on microfiche.

It is also noteworthy that the Alberta Geological Survey is involved in coring operations for Plains coal resources (G.D. Mossop, pers. comm., 1983) and stores these cores until Survey geologists have completed their research on them. Then the cores are transferred to the ERCB Core Research Centre in Calgary, where ERCB bears responsibility for curation and public access.

Oil Sands Sample Bank of Alberta Research Council, Edmonton

The Oil Sands Sample Bank was established by the Oil Sands Research Department of the Alberta Research Council with support from the Alberta Oil Sands Technology and Research Authority (AOSTRA). The main objective of the facility is to make available samples of oil sand, bitumen, and related materials for research. The Sample Bank contains 122 m of core from five wells, comprising 61 m of whole core and 61 m of halved core, in addition to 40 tons of bulk oil sand. Cores from the Athabasca oil sands have been supplied by Numac and Canterra; those from the Peace River deposit were provided by Shell. The bulk oil sand has come from Suncor's operations. The earliest storage in the Sample Bank dates back to 1977. There are no restrictions on availability of information on the holdings of the facility to the public, in that materials are only put into storage on attainment of nonconfidential status.

The Sample Bank has freezer facilities for storage of 600 drums of materials, related to the oil sands industry. The cores are stored on shelves and pallets and have been assigned call codes by well location (legal description). Whole cores are in core sleeves, while halved cores are kept in plastic bags, stored in core boxes. The bulk oil sand is in 45-gallon drums, lined with plastic, and in 1.2 m by 1.2 m by 1.2 m wooden crates with plastic lining. A computer program for documentation of the Sample Bank's holdings is being developed. The stock list of the facility is available on demand as a series of typed sheets.

The Sample Bank has a support staff of three persons, whose duties include sample characterization (bitumen, bulk oil sand) and distribution, as well as storage studies. Most cores are not analyzed and are left as undisturbed as possible, until they are required by a client. In general, there is little demand for cores; bulk oil sands from commercial leases are more in demand for engineering projects. The examination facilities of the Alberta Geological Survey are available to users of the Sample Bank wishing to examine cores. The cores are retrieved from storage manually and by means of a forklift. There is a charge for materials supplied from the Sample Bank based on actual costs. The facility is open to the public from 08:00 to 17:00 hours on weekdays.

Data from the Oil Sands Sample Bank are entered into the Alberta Oil Sands Information Centre data base (Alberta Research Council) and will soon be available to Information Centre subscribers. Petrologic/geochemical analyses of cores and core analyses are obtainable from the Alberta Geological Survey. Also available are detailed oil analyses by Sample Bank staff and some connate water analyses.

Core and Sample Repository, Institute of Sedimentary and Petroleum Geology, Calgary

The Core Sample Repository at the Institute of Sedimentary and Petroleum Geology is maintained by the Geological Survey of Canada and houses cores from all lands north of the 60th Parallel of latitude, in addition to drill cuttings from all lands north of the 60th parallel, the east and west offshore regions and the four western provinces. The repository contains 53 340 m of core, representing 350 wells. Some sets of drill cuttings are from wells drilled prior to 1929. There is a complete collection of geophysical well logs from wells drilled in the western provinces, as well as both logs and well history reports for north of the 60th Parallel and east and west coast offshore. Sidewall cores from wells drilled on federally administrated lands, mine-shaft samples from the northern Williston basin region, and samples from geotechnical site investigations are also stored. There is no policy of data reduction at this facility; continuous cored sections are stored. All materials with nonconfidential status may be examined by the public at the repository. The duration of confidential status for wells drilled on federal lands is two years for wildcat wells and 60 days for field wells; for wells under provincial jurisdictions, it is one year for wildcats and 30 days for field wells.

The repository has a core-storage area of 2323 m^2, in which the cores are stored in standard cardboard containers on steel racks. The storage area for drill cuttings is 1162 m^2; that for geophysical well logs is 265 m^2. Cuttings are stored in glass and plastic vials, which are kept in trays. Retrieval of cores and drill cuttings is carried out by matching the legal description of a given well with bin and tray numbers. There are no special conditions of storage for particular lithologic associations. The holdings of the facility are documented in both federal and provincial schedules of wells and monthly drilling and land reports. A system of petroleum information cards is maintained and the cores and drill cuttings are accessed with reference to a card index system, based on the legal description of drill sites; a common-name alphabetical index is employed for federal lands.

The repository is staffed by a supervisor and one assistant. The duties of the staff include the receiving and documentation of well cuttings, cores, logs, well schedules and card data; the release of nonconfidential materials to users of the core and sample library; and the control of subsampling of reserve material and cores. The examination area of the facility is 252 m^2 and includes roller layout tables and microscope carriers, designed for easy core examination.

There are eight tables for core examination, three of which are enclosed for the viewing of confidential cores. The sample examination facilities include spaces for 15 geologists at a time; three cubicles are enclosed for examination of confidential samples. Water and electricity are available, but microscopes and other aids to core and cutting description must be supplied by the user. The subsurface materials are made available for examination by the repository assistant using a forklift, hand carts, and a hydraulic jack. The repository is open to the public from 08:00 to 16:00 hours on weekdays. Clients are asked to fill out a standard request form, noting the legal description of the drill site which is the basis for the index system used for the holdings of the repository. Permission to sample is given at the discretion of the repository supervisor. In accordance with a regulation set by the Canada Oil and Gas Lands Administration (COGLA), the size of a sample is restricted to 1 cubic inch per lineal foot. There is no public access to the rock saws of the repository, which are operated by the staff when necessary.

Other subsurface data on file include petrologic/geochemical analyses, core analyses, fluid analyses and drill stem tests, where these are incorporated into well history reports, but are available for wells drilled on federally administered lands only.

Saskatchewan

Subsurface Geological Laboratory of Saskatchewan Department of Energy and Mines, Regina

Constructed in 1958, the Subsurface Geological Laboratory of Saskatchewan Energy and Mines in Regina was the first, large-scale, mechanized core-storage facility to provide public access to subsurface materials in western Canada. Currently the facility is maintained by the Saskatchewan Geological Survey and contains about 304 800 m of core, representing in the order of 10 000 wells. The cores and drill cuttings stored in the repository, originated for the most part in exploration and development ventures by private oil and gas companies drilling in southern Saskatchewan. However, the holdings of this facility also include subsurface materials from wells drilled as stratigraphic test holes and in search of commercial accumulations of oil shale, tar sand, coal, potash, rock salt, limestone, and iron ore. Entire cores are stored since there is no policy of data reduction. Some sidewall cores and mine-shaft samples are also stored. Duration of confidential status for materials from wells drilled under the Petroleum and Natural Gas Regulations is one year for wildcat wells and one month for field wells. In addition, special restrictions on the availability of some data to the public are enforced on an individual basis.

The floor of the warehouse part of the repository is of reinforced concrete, poured in 6.1 m squares with expansion joints. A galvanized corrugated steel roof is supported by a rigid frame. The core-storage area of the facility is 3902 m^2, whereas the area reserved for storage of drill cuttings is 279 m^2. The cores are in standard core boxes, piled in steel racks to a height of 3.7 m and called by row, level, and stack designations. Drill cuttings are in glass vials, stored trays, which are kept in wooden cabinets; they are called by cabinet number and tray number. Special conditions of core storage include the use of plastic sleeves for potash cores containing carnallite. The holdings of the facility are documented in a computer-oriented data system which is maintained by the Geodata Section at the Saskatchewan Geological Survey headquarters. A schedule of wells is obtainable as a printout on request. A card file in which subsurface materials stored at the facility are accessed by legal description of the drill-site location, is available at the repository. A comprehensive set of geophysical well logs may be consulted by visitors to the laboratory.

The facility has a staff consisting of one Laboratory Supervisor, two secretaries, and five laboratory workers. The secretaries maintain the card index of subsurface materials stored in the repository, file geophysical well logs, and aid visitors in completion of the call procedure for cores and drill cuttings. The laboratory workers receive, document, and store cores arriving at the facility, and operate the sample washing machine. They also retrieve cores and drill cuttings from storage and lay them out for examination by visitors. A core-examination area of 223 m^2 contains 20 roller-conveyor examination tables, each 6.1 m long. The area for examination of drill cuttings amounts to 37.2 m^2 and contains four sample examination tables. Water dishes and brushes are provided for the washing of cores, but microscopes, acid, and other tools of the trade should be supplied by the client. The call procedure for subsurface materials involves entering well name, land location, and depth of interval to be studied (below Kelly Bushing) on core and sample examination cards at the front desk. A secretary adds the warehouse location and forwards the cards to the laboratory workers; a charge sheet is started for later billing of the user. Retrieval of cores is by means of forklifts. The laboratory is open to the public on weekdays from 08:00 to 12:00 and from 13:00 to 17:00 hours. Examination costs are $5.00 per well and 0.10 per box for cores and $2.00 per well for drill cuttings; copying costs are $1.00 plus 0.25 per sheet for paper or microfilm. No slabbing of cores is undertaken without company and government permission. Samples of 100 grams or more may only be taken with government authorization and two copies of any research result arising from the sampling must be supplied to the government.

A computerized storage/retrieval system for subsurface data from southern Saskatchewan is maintained by the Geodata Section at the Saskatchewan Geological Survey headquarters. The section has a master paper file which is for the most part computerized. Petrologic/geochemical analyses, core analyses, fluid (hydrocarbon and water) analyses, and drill stem tests may be examined. Petroleum-production data fall under the juurisdiction of the Petroleum and Natural Gas Division of Saskatchewan Energy and Mines. The Publications Office of the department makes available at low cost to the public a variety of research reports many of which include lithologic descriptions of cored sections.

Saskatchewan Precambrian Geological Laboratory, Saskatchewan Energy and Mines, La Ronge

The Precambrian Geological Laboratory, operated by Saskatchewan Energy and Mines in La Ronge, is the repository for 17 277 m of concentrated cores and 33 257 m of unconcentrated cores, altogether representing 707 diamond drill holes, drilled by mineral-exploration companies in northern Saskatchewan. The collection contains low-priority cores from 266 holes, concentrated with reference to the company log by taking a 6-inch sample every 10 feet or with each major change in rock type or with each change in mineralization. Split sections have been kept intact. Cores in the mineralized core collection of the laboratory are not concentrated. The mineralized rock specimen collection includes rocks from open-pit and underground mines. The Mineralized Core Collection Program of the laboratory has been in effect since 1978 and involves the collection of nonconfidential material from known ore deposits, by special agreement with the companies owning the properties. Nonconfidential files, comprising diamond drill hole location maps, logs, sections, and assays, have also been compiled. The Mineralized Core Collection attempts to collect complete sections of holes which were used to

illustrate published scientific work. Stratigraphic-test cores and all materials collected from 1965 through 1978 are available for examination by the public after a period of six years and after the lapse of the property. Alternatively clients may examine cores after producing written permission from the owner.

The core warehouse is unheated and has a smooth cement floor. The largest entrance has an overhead door, which has an area of 10 m^2. Cores are moved on a set of rollers through a wall hatch from the warehouse into the heated core-examination laboratory. The area for storage of cores and rock specimens from mineral showings is 504 m^2. The 12 core-storage units are each 7.6 m long by 1.7 m wide by 2.4 m high. The Department will add four more core storage units in the 1984-85 fiscal year. Each core-storage compartment is 1.7 m long x 0.85 m wide x 0.3 high; plywood interleaves measuring 1.7 m by 0.24 m separate successive layers of core. The cores are in wooden boxes, mostly 1.6 m by 0.2 m in size. Each box contains up to 7.6 m of core arranged in five rows. Core boxes are labelled with company name, year, property, lake, hole number, and interval (by box), all indicated in an abbreviated form. Rock specimens from mineralized showings are commonly in cloth and plastic bags, stored in rectangular plywood boxes. The warehouse door is left open during work days to keep the core-storage area ventilated and to prevent any build-up of radon gas. The area of the warehouse occupied by core racks is 377 m^2; the remaining area is used in the sorting of cores and in storing assessment work records. Cuttings in the collection consist of a single set from one hole through the Collins Bay A Zone. The laboratory has a file which contains a diamond drill hole location map, logs, sections, and assays for all cores in the collection. This file is divided between the Saskatchewan Energy and Mines assessment files and a series of special files, collected by request from individual companies. A core inventory by NTS is available as a printout; an Index to the La Ronge Laboratory Drill Hole Collection with 1:250 000 diamond drill hole location maps is in preparation.

The laboratory is staffed by the SEM Resident Geologist in La Ronge and one geological assistant. The Resident Geologist identifies the cores to be incorporated into the collection and writes to the appropriate companies requesting subsurface materials. He also unpacks, stacks and labels cores and updates and checks the core inventory. The geological assistant is employed from May through August inclusive to collect, label and stack cores. In addition, he updates the core inventory and prepares the index to the holdings of the laboratory. The geological assistant aids users of the facility by setting out and putting away cores during the summer months with the aid of a hydraulic lift, a rolling safety ladder and a steel trolley. The examination area is 50 m^2 and contains a roller table for core examination. There are two binocular microscopes, and three petrographic microscopes. One petrographic microscope is for the examination of thin sections only, another is for polished ore sections only while the third is adaptable for both polished ore and thin section examination. There is also equipment for the preparation of thin sections and polished ore sections, as well as a spectroscope, although there is no technician to operate them. The repository is open from 08:00 to 12:00 and from 13:00 to 17:00 hours. Anyone travelling to La Ronge to look at cores should inform the Resident Geologist in advance. Each request to sample cores is considered on its own merits. The mineralized uranium cores are not sampled, but the mineralized base-metal cores are sometimes sampled at the request of the owner. Stratigraphic cores from the Athabasca Sandstone may be slabbed in the laboratory with the aid of the two rock saws, which are available for use. Sampling must be approved by the company which drilled the core.

The core inventory is updated and printed by means of a word processor in Regina. Petrologic and geochemical analyses are frequently available for the mineralized cores which are selected on the basis of published papers containing detailed lithologic descriptions. Analyses are also present in the assessment files and special mineralized core collection files.

Manitoba

Phanerozoic Drill-Core Libraries of Manitoba Department of Energy and Mines in Winnipeg

There is public access to cores and drill cuttings from the Phanerozoic strata of southern Manitoba and the Manitoba part of the Hudson Bay Lowlands in repositories at two Winnipeg locations which are operated by the Manitoba Department of Energy and Mines: 1) Building 12 on the University of Manitoba campus at Fort Garry and 2) a machinery shed adjacent to the Precambrian Drill-Core Library on Brady Road at the South Perimeter Highway. The subsurface materials in storage come from oil exploration companies and Manitoba Hydro, as well as from the Department of Energy and Mines Stratigraphic and Industrial Minerals Core-Hole Program and Water Resources Branch test holes. The earliest material in storage dates back to circa 1890, although the first comprehensive collection was put together in 1947. The holdings of the repositories include 50 500 m of core from about 2 300 oil-exploration wells and 8 200 m of core, representing approximately 200 stratigraphic core holes. Full cores are retained for all of these wells. Drill cuttings have been obtained from almost all wildcat wells and from selected development wells at a well density of no less than one well per section. Data from wildcat wells in southern Manitoba remain confidential for one year after the termination of drilling; in the Hudson Bay Lowlands and confidential period is two years. All other well data are available to the public for examination.

The storage area at the University repository is 714 m^2 and is occupied by new cores, wildcat cores, and well cuttings. At the Brady Street laboratory, the storage area of 558 m^2 contains cores from mainly older field wells. Cores are stored in standard cardboard boxes, stacked on steel racks. The latter are identified as to section and row, while the storage location for each well is recorded on a master index and on a supplementary well data card file which employ the legal description of the well location. The only special conditions of storage pertain to the use of plastic sleeves around cores of rock salt, which in addition are contained in standard core boxes. Drill cuttings are stored in 3-dram glass and plastic vials which are arranged in sample trays, filed in wooden cabinets. The holdings of the repositories are documented in a published Index of Core and Sample Storage; in addition there is a published schedule of wells released weekly, monthly, and annually.

There is no permanent laboratory staff at either facility. Personnel from the main geological laboratory (one or two laboratory assistants as needed) are provided to lay out cores and drill cuttings for examination. The examination area of the University core library is 72 m^2. Approximately 20 m of table space may be utilized for ore examination and three work desks are provided for microscope studies of drill cuttings and other materials. There is also a small chemical laboratory for use in the staining of samples and similar activities. A binocular microscope and an ultraviolet lamp are available at the University repository, but in general, visitors are requested to supply their own equipment for core and sample examination. One diamond saw is provided at the University facility for core-slabbing purposes and may be used by a laboratory assistant or visitors as necessary. Additional saws

are available at the central laboratory. The Brady Street laboratory has no separate area for core examination, although an area of approximately 80 m^2 is made available for this purpose in the adjoining Precambrian Drill-Core Library. In this area, about 15 m of table space is provided for core examination; there is a water supply for the washing of cores and three desks for microscope work. All requests to sample cores are considered individually. In general, when materials are permanently removed from the collection for testing purposes, all results arising from the studies must be submitted to the Department. The Phanerozoic Drill-Core Libraries are open to the public from 08:30 to 16:30 hours during weekdays. All visitors must notify the Petroleum Branch or the Geological Services Branch of their requirements in advance, giving three or four days notice if at all possible and submitting at that time complete lists of all cores and drill cuttings to be examined. Unscheduled visits can frequently be accommodated, but the normal support staff may not be available at short notice. Use of the examination facilities outside of normal working hours can be arranged.

There is no computerized storage/retrieval system for subsurface data, but all nonconfidential well files are available for public examination at the Petroleum Branch headquarters. Other data of a nonconfidential nature on open file include core analyses, fluid analyses, and drill stem tests, as well as a limited number of petrologic and geochemical analyses. The following publications, released by the Department, are also noteworthy: 1) a Table of Lower Paleozoic Formation Water Analyses, Bakken to Precambrian; 2) a Table of Lower Paleozoic Drill Stem Tests, Bakken to Precambrian; 3) petroleum production data, by well, producing unit and field, published monthly and annually by the Petroleum Branch; and 4) research reports, some of which include core descriptions.

Precambrian Drill-Core Libraries of Manitoba Department of Energy and Mines in Lynn Lake, Thompson, The Pas and Winnipeg

Approximately 120 000 m of core, for the most part supplied by mining exploration companies, are stored in repositories operated by the Manitoba Department of Energy and Mines at four locations: Lynn Lake, Thompson, The Pas, and Winnipeg. These collections include some cores from holes drilled underground by mining companies, as well as minor amounts of material from drilling programs by the Manitoba Department of Energy and Mines, and Manitoba Hydro. Complete cores are stored as far as possible. Cores are regarded as confidential for as long as the property, from which they came, remains in good standing. Each repository is divided into nonconfidential and confidential sections. Users of the storage facilities must obtain the permission of the appropriate property owner, in order to be given access to confidential materials.

The repositories are wooden sheds with storage areas amounting to 325.2 m^2 (Lynn Lake), 208.1 m^2 (Thompson, 356.7 m^2 (The Pas) and 22.3 m^2 (Winnipeg). The cores are held in wooden boxes, which are stored on steel racks. A simple alphanumeric location code is employed to designate rows, racks, and sections within the storage areas. The index system for the collections is currently under revision, but will take the form of a manual card index, augmented by a map index. There are plans to document the holdings of the drill-core libraries in a computer-oriented filing system. Additional storage facilities are being planned for The Pas, Thompson and Winnipeg.

The core-storage operations of drill-core libraries are supervised by an Assessment Geologist, while collection and cataloguing are carried out by a Drill-Core Geologist. Small core-examination areas of about 55.7 m^2 are available at each facility. The core boxes are moved from storage to the examination tables by hand. Running water is available at the Winnipeg facility. No running water is provided in the examination areas of the other repositories, but the rooms are heated. The facilities are open to the public during normal working hours. Visitors should first contact either the Assessment Geologist or the Drill-Core Geologist, who are based in Winnipeg. Access to the storage facilities is then gained by applying to the appropriate government employees in each area; for example, key access is provided by the Conservation Officer in Lynn Lake and by the Mining Recorder in The Pas.

Drilling records may be consulted by members of the public in the assessment files of the Geoscience Data Section at its Winnipeg headquarters.

Ontario

Petroleum Resources Laboratory of Ontario Ministry of Natural Resources in London

Cores and drill cuttings from wells penetrating the Phanerozoic strata of southwestern Ontario (onshore and offshore), the Ottawa Lowlands and the Ontario part (onshore) of the Hudson Bay Lowlands are available for examination at this facility. More than 37 000 m of continuous cores representing 750 wells, as well as drill cuttings from approximately 6400 wells, are stored in the Petroleum Resources Laboratory. They fall under the jurisdiction of the Petroleum Resources Section of the provincial Ministry of Natural Resources. The holdings of the repository originated mainly in exploration and development drilling by private companies in southwestern Ontario. However, drilling programs by the Ministry of Natural Resources and Ontario Hydro are also represented. A consistent policy of data reduction with regard to cores is pursued at the repository: whole cores are retained for cores of 1-inch diameter, but half-slabs are kept for cores of diameter one to three inches and a 1-inch wedge is taken from cores of diameter three inches or more. Drill cuttings are stored in glass vials containing about 10 to 15 grams of washed material. Drill cuttings, cores, and related information, including core analyses from exploratory wells, are held confidential for one year from the well completion date. Similar data from development wells have confidential status for a period of at least 30 days after the well completion date and in addition are not released prior to the release of information from the discovery well. An operator may apply in writing for an extension of the period of confidentiality.

The Petroleum Resources Laboratory occupies a total area of 557.4 m^2, of which 362.3 m^2 are for the processing and storage of drill cuttings and cores. Most cores are stored in standard diamond drill hole core boxes, measuring 66 cm by 20.3 cm. Each core is assigned a unique number at the time of being received at the laboratory, prior to being placed in storage. Currently these reference numbers are from 100 to 863. The core number is marked on the end of each box and noted on the corresponding well summary card. The core boxes are stored on steel racks. Samples of drill cuttings are washed, prepared, and placed in glass vials which are stored in numbered trays, arranged sequentially in cabinets. The tray number is marked on the appropriate well summary card. Computer-generated sample and core indexes are available to the public on request. A complete listing of wells in Ontario, from which cores have been recovered, has been compiled for publication. The Petroleum Resources Section is updating the computer-oriented filing system to improve access to nonconfidential data. Geophysical well logs on file at the laboratory may be consulted by visitors.

The staff of the laboratory comprises the Chief Geologist responsible for the administration of the Petroleum Resources Laboratory; the Senior Petroleum Geologist who advises patrons with respect to the geological parameters of hydrocarbon accumulations in Ontario and conducts research on petroleum-related topics; the Resources Geologist whose responsibilities lie in the fields of Quaternary geology and industrial minerals; the Data-Processing Technician in charge of operation of the computer facilities; the Laboratory Technician responsible for the processing of drill cuttings and cores and the operation of storage facilities; and two Clerk-Typists who handle the day-to-day correspondence, filing, and patron enquiries. Sample examination areas, offices, a map room, and a lunch room occupy 195.1 m^2 of the laboratory. Drill cuttings and cores may be examined by visitors at three booths measuring about 2 m by 2 m; additional space is available in the storage area for the examination of large volumes of core. Patrons are required to retrieve and replace the cores and drill cuttings they examine. Cores are moved by hand and with the aid of small, wooden dollies. The examination facilities consist of three roller-top table for core studies. Visitors should provide their own microscopes, although four binocular microscopes can be made available by the Petroleum Resources Section, if necessary. The release of samples and cores for destructive testing is not encouraged. Thin sections can be made, but must be returned to the laboratory on completion of the study in question. The facility is open to the public from 08:15 to 16:30 hours on weekdays.

The Petroleum Resources Section is currently updating the Ontario Well Data System to reflect the advanced technology available. The new system will utilize a data-base management system and query language. Patrons will be able to request virtually any nonconfidential well, pool, or production data on the basis of a specific set of criteria. No petrologic or geochemical analyses are available at the repository. Core analyses are available in the well files for most cores. Gas, oil and water analyses, and drill stem tests are also on file. A current project of the Petroleum Resources Section has to do with the collection, cataloguing, and publication of fluid analyses; another study in progress deals with the compilation of drill-stem-test data. Monthly and annual updates of production data for oil and gas pools are available to the public. The new computer system will supply production data by well, district, and other classifications as requested. The Section provides well-location, pool, pipeline-location, and geological maps for sale to the public. The Oil and Gas Exploration, Drilling and Production Summary is compiled and published annually.

Diamond Drill Core Facilities of Ontario Ministry of Natural Resources at Kirkland Lake, Sault Ste. Marie and Timmins

Diamond drill core facilities were recently constructed for the Ontario Ministry of Natural Resources at Kirkland Lake, Sault Ste. Marie and Timmins. These core-storage facilities are the first of a series of repositories to be located in key areas across the province by the Ministry of Natural Resources, using funding provided under the Board of Industrial Leadership and Development (BILD) Program. The repositories are to be in operation by June, 1984. The following amounts of core are awaiting transfer into storage from temporary locations: approximately 60 960 m at Kirkland Lake (Larder Lake Mining Division Drill Core Library) and 27 432 m at Sault Ste. Marie. About 36 576 m of core are in storage at the Timmins repository (Porcupine Mining Division Drill Core Library) and approximately 30 480 m are located in temporary storage areas. There are plans to establish and maintain reference collections of hand specimens from local mines and prospects at each repository. In addition, representative samples from Ontario Geological Survey mapping projects will be placed in storage. The core collections will not initially undergo any selective volume reduction, with the exception of closely spaced holes, such as from definition drilling, which will be "telescoped" in accordance with the following guidelines: (1) All mineralized sections (including conductors) are retained intact and include graphite, quartz veins with recognizable associated alteration, visible concentrations of economic minerals and sections of core with concentrations of economic minerals indicated by assay; (2) Sections of core, regarded as being of potential economic interest, may be retained; (3) Contacts are to be retained, wherever possible; (4) Felsic volcanics may be retained; (5) Representative samples of alteration are to be retained; (6) Samples from dykes are to be retained; (7) Telescoping should take the form of a complete 1-foot (0.3 m) section to be retained every 5 feet (1.5 m). These guidelines for telescoping designate minimum amounts of core to be kept. The amount of core to be retained is at the discretion of the Resident Geologist. Cored sections which will not be telescoped include type stratigraphic sections, important ore zones, and cores from poorly known areas. Cores are available for immediate public access, except where (1) a donor has requested that particular drill-hole information retain confidential status for a limited period of time, and (2) data from a well, drilled under the Petroleum Resources Act, remain confidential for 90 days after the well completion date.

The repositories at Kirkland Lake and Timmins each have a total storage capacity of approximately 175 260 m of core, while the facility at Sault St. Marie has a total capacity of about 121 920 m of core. The cores are to be stored in standard 5-ft. (1.5 m) wooden core boxes stacked on metal racks. For example, at the Sault Ste. Marie facility, cores will be stored 48 boxes high by 36 boxes wide per core stack. A province-wide coding system will employ an alphanumeric scheme for designation of storage modules, columns of boxes and rows of boxes in conjunction with the depths which delineate the cored section. In this manner, each box has a unique alphanumeric designation. A computer-based indexing system, employing Apple IIe computers and the D-II Data Storage System for data storage and retrieval, is to be used for the accessing of subsurface materials in storage. A backup is to be provided by paper indexes, logs, maps, and petrologic and geochemical analyses. There are plans to maintain a computer linkage between the various libraries and with the OGS office in Toronto.

Each of the drill core libraries will be staffed by a geologist (Core Librarian) and an assistant. The Core Librarian's duties will include logging, cataloguing, indexing and computerization of data and core collecting. The assistant will be concerned with core collecting as well as storage and retrieval of cores. The core examination areas at Kirkland Lake and Timmins are 6.4 m by 9.0 m in each case, whereas that at Sault Ste. Marie is 6.1 m by 7.6 m. At Sault Ste. Marie the call procedure to be employed involves the filling out of cards by users of the facility to request core; alternatively a user might request that a computer search be carried out by repository staff, on the basis of company name and other relevant information. At all three storage facilities, retrieval of cores will involve the use of fork lifts and dollies by staff members only. Each repository will have two examination tables, equipped with stainless steel sinks and shower heads for the washing of cores. Binocular and petrographic microscopes will be provided for use by members of the public. Sampling of the materials in storage will be carried out by the repository staff only. Users of the facilities will not be permitted to enter the storage areas and will not have access to rock saws on the premises. The repositories are to be open to the public from 08:15 to 16:30 hours on weekdays. Appointments to use the

Sault Ste. Marie Core Library should be made at least two weeks prior to the planned visit. There will be no fee charged for use of the core-storage facilities, although a charge is made to cover cost for any assays carried out for users.

Projected Diamond Drill Core Libraries of Ontario Ministry of Natural Resources at Bancroft and Tweed

The Ontario Ministry of Natural Resources has plans to build core-storage facilities at Bancroft and Tweed during 1984. Each of these repositories will have a storage capacity of approximately 45 720 m of core and will be about half the size of each of the facilities at Kirkland Lake, Sault Ste. Marie and Timmins. The subsurface materials to be stored in the Bancroft repository will come from the Algonquin Region of MNR, whereas those to be held at Tweed will come from the Eastern Region of MNR. The computer-oriented documentation of repository holdings and general services provided to the public are expected to be closely comparable to those described in the preceding section.

Projected Diamond Drill Core Libraries of Ontario Ministry of Natural Resources at Thunder Bay, Sudbury, and Kenora

Core-storage facilities are also planned by the Ontario Ministry of Natural Resources for Thunder Bay, Sudbury, and Kenora, in that order. Cores are currently stored at Thunder Bay and Sudbury.

In the Thunder Bay repository, 11 369 m of core are currently stored in the original core boxes which are piled randomly on pallets and two racks. Also stored are suites of rock and ore specimens from mines in the North-Central Region of MNR. The size of the storage area currently in use is 15.2 m by 6.1 m. The holdings of the repository are documented on maps, showing approximate locations of drill holes; the drill-hole logs are also on file. There is no support staff and all cores are retrieved by hand. No sampling regulations have been formulated at present. The repository is open to the public between 08:15 to 16:30 hours on weekdays, although special arrangements can be made to use the facilities at other times. No fee is charged for the limited services provided.

Approximately 1 000 m of cores are stored in boxes under cover at McFarlane Lake, Sudbury. In addition, an unknown amount of core from diamond drill holes throughout the Northeastern Region is currently being held for OGS by private companies. Upon completion of the new diamond drill core library at Sudbury, these cores will be moved into storage and made available for examination free of charge by the public during regular work hours on weekdays.

Core Repository of Engineering and Terrain Geology Section (OGS) at Toronto

The Engineering and Terrain Geology Section of OGS has maintained a core repository in the northwestern part of the basement in the Whitney Block at Queen's Park, Toronto since 1981. A total of 10 363 m of core is stored on racks and 1981 m of core are stacked on the floor in boxes representing approximately 65 wells altogether. The cores originated for the most part in projects of the Section, directed at parts of the Paleozoic succession of southwestern Ontario. Continuous cores are stored at the facility as long as they are under study or await examination by Section geologists. Before completion of such a study, the cores have confidential status and are seldom examined by members of the public. On completion of an investigation, the cores are transferred to one of the drill-core libraries operated by OGS, and assume nonconfidential status.

The storage area of the Queen's Park repository will hold approximately 10 670 m of HQ or NQ cores on storage racks and there is space for about 2000 m of unshelved cores (PQ size). Each core box is numbered and this number, the well name, and land location are marked on the end of the box. An index file of the repository holdings is maintained at the Grenville Street headquarters of the Engineering and Terrain Geology Section. A series of open file reports, incorporating the results of core studies by Section geologists is also available and in some cases these include petrologic and geochemical analyses and fluid analyses.

The repository has no full-time support staff. It is attended on an irregular basis by staff from the Section headquarters, in connection with ongoing research projects. In the examination area, there is a bench 0.91 m wide, on which up to 91 m of core can be laid out for study. About 305 m of core may be examined at a single time through use of the floor space of the examination area. A slab saw with a 14-inch blade is available for use at the repository. All cores are retrieved by hand. The core-storage facility is not open to members of the public.

Core-Storage Facilities of Ontario Hydro at Various Locations in Ontario

Cores from diamond drill holes of the Geotechnical Engineering Department of Ontario Hydro drilled in connection with numerous electrical generating and related projects throughout Ontario, are commonly stored at or near the project site on a temporary basis. There is no central core-storage facility and Ontario Hydro has no full-time staff assigned to core storage; the short-term duties, connected with maintenance of the temporary facilities, are carried out by geotechnical technicians. Borehole logs and geotechnical site-investigation reports are kept on file by the company. The cores and related information can be made available to the public upon submission of a written request to the Department Manager. Selected cores of special interest are sent to the Petroleum Resources Laboratory of the Ministry of Natural Resources in London.

Core-Storage Facilities of Canada Centre for Inland Waters at Burlington

Soft-sediment cores taken mainly from the Great Lakes and subordinately from some of the smaller lakes in Ontario are stored on a short-term basis at the Canada Centre for Inland Waters at Burlington. The Centre is staffed by workers from the Department of the Environment and the Department of Fisheries and Oceans, some of whom are engaged in geoscience and related projects. Cores are taken to meet the research needs of individual research scientists of the Centre. The cored sections are extruded and sliced up shortly after collection and are then put temporarily into cold-room storage facilities. These subsurface materials may be made available for examination by the public at the discretion of the research scientist concerned.

The cold room for storage of subsurface materials measures 3.0 m by 3.7 m by 3.0 m. There is no documentation of the holdings of the repository. Specific materials in storage may be accessed only through consultation with the appropriate research scientist.

There is no support staff responsible for operation of the repository nor are there any examination facilities for public use. Sampling of the materials in storage may be permitted by an individual research scientist. The Centre is open to the public from 08:00 to 16:00 hours from Monday to Friday.

Québec

Lithothèque of Ministère de l'Énergie et des Ressources (secteur Mines), Rouyn

In the Lithothèque (Core Library) of the Québec Ministère de l'Énergie et des Ressources (secteur Mines) at Rouyn, cores from about 1500 diamond drill holes are stored. The main sources of the cores are farm and other private water wells, the diamond drill holes of some exploration companies, and provincial government drilling projects. An original aggregate thickness of approximately 111 000 m of drill core has been reduced to about 10 000 m and 65 000 m of additional cores in storage have yet to undergo reduction. The approach to data reduction involves the condensation of most cored sections by 90 per cent, that is, 30 cm is retained per 3 m (1 ft. every 10 ft.). The cores from some holes of special interest are kept in their entirety. Other subsurface materials among the holdings of the repository include about 500 subsurface samples, stored on special shelves. No drill cuttings have been stored in the facility to date. In general, the subsurface materials in storage are available for examination by members of the public. However, some cores may be assigned confidential status for up to one year after the well completion date at the request of the operator.

The repository comprises a storage room, an office, a log room, and a truck area. The storage area is 30 m by 15 m and has a truck entrance, measuring 4 m by 5 m. There is a possibility that a second storey of similar size will be added to the storage area. The cores are stored in the original boxes on steel racks which are arranged in sections designated A through E. There are about 80 stacks of shelves per section and each stack contains 25 shelves. The holdings of the repository are documented on filing cards and referenced by location and by company name. Well locations are also marked on an index map at a scale of 1:50 000. The establishment of a computer-oriented system of documentation with well locations defined by UTM coordinates is currently under way.

The Rouyn Lithothèque is staffed by one geologist (the Resident Geologist), a technician, and a labourer. Users of the facility are permitted to examine cores in the log room which measures 3 m by 4 m and contains an examination table. There is also a possibility of setting up makeshift tables on which cores may be laid out in the storage room. A water supply for washing of cores under investigation, a binocular microscope, various chemicals, and an ultra-violet lamp are available for use by visitors. All cores are retrieved manually with the aid of three trolleys. Permission to sample cored sections in storage is granted to claim owners with the condition that the results of analyses are to be submitted to the repository. Intending users of the facility should make an appointment to visit the Lithothèque by contacting the Noranda office of the Resident Geologist. The repository is open to the public during normal working hours: 08:30 to 12:00 hours and 13:00 and 17:00 hours, Monday through Friday. There is no charge made for use of the core-examination facilities.

Lithothèque of Ministère de l'Énergie et des Ressources (secteur Mines), Val d'Or

A total of 22 723 m of core representing 496 holes is stored in the MERQ Lithothèque at Val d'Or. The core-storage facility is in a rented truck garage which has been vacated by a transport company. Storage of cores began in 1979. The cores were supplied by mining and exploration companies, individuals, and government agencies engaged in drilling operations in the Val d'Or – Matagami district of northwestern Québec. Cored sections regarded as "routine" in nature by the repository geologist, are reduced to 1 foot (0.3 m) retained for every 10 feet (3.0 m) of section. Cores with features of stratigraphic importance and mineralized sections are kept intact. The repository holdings also include rock and ore samples collected by MERQ geologists during mine and prospect inspections and donated by visitors to the facility. The cores and samples in storage are for the most part readily available to the public. Some materials recently acquired have confidential status for a period of one year; this period may be extended at the request of the industrial operator concerned.

The Val d'Or Lithothèque has a total area of 32.6 m by 13.7 m which is occupied by a large, open core-storage room, a core-examination room, an office, and a washroom. The open area has a large, power-operated door with vertical lift. The cores are stored in wooden boxes, each 1.5 m long, which can hold 6.1 m or 7.6 m of core, depending on the diameter. The boxes are kept on specially designed steel racks, each of which is made up of five divisions; a division contains up to 125 boxes. Twenty racks can be placed on one level and the racks are designed for use at two levels. The cores from each hole are assigned a unique number on being received into storage: currently the core numbers range from 1 to 496. A numbered pin on a wall map indicates the location of each hole, represented by a core or cores in storage. In addition, each core put into storage is documented on a special form, giving hole identification, location, a description of the cored section, and a sketch map of the location of the hole. The index system employs cross-referencing by company name and township location. The rock and ore samples are kept in labelled canvas bags, stored on steel shelves.

The staff of the repository comprises one full-time labourer and one part-time geologist (supervisor). Students are hired during some summers for the cataloguing and reduction of cores. The examination area measures 4.9 m by 2.7 m and has a counter along two sides. A large ping-pong table is available to be set up in the open part of the repository for core examination. Users of the facility have access to a water supply in the examination room, a binocular microscope, and a core splitter. There are two diamond saws which may be used only by the full-time labourer on behalf of visitors. The cores are retrieved manually and a hand-cart is used to transport them from the racks to the examination area. There is a possibility that a forklift will later be employed for retrieval of cores from the second level of racks. Repository users may be permitted to sample the materials held in storage following consultations with the geologist as to the size of sample required and the reason for sampling. Intending users can gain access to the subsurface materials in storage by contacting the Resident Geologist at his office, which is located two blocks from the facility. The repository is open to the public from Monday to Friday during regular office hours. No charge is made to repository users.

Lithothèque of Ministère de l'Énergie et des Ressources (secteur Mines), Chibougamau

In the order of 18 288 m of core, representing 120 wells, are stored in the Chibougamau Lithothèque of MERQ. The repository is a converted garage located 10 km from the office of the Resident Geologist, and comprises a storage area, an examination area, an office, and a washroom. The cores for the most part came from mining companies, although a minor proportion originated in drilling projects carried out by MERQ (secteur Mines). In many cases, only part of the original core is stored. There are no general regulations concerning data reduction, so that each core is considered on the basis of its unique features. All lithologic contacts are retained and an attempt is made to store sufficient material for a given lithology to permit a thin section and several chemical analyses to be made. There is no specific policy with regard to the confidential status of

particular wells, although some proposals in this regard were made in the fall of 1983: an absolute minimum of confidential material should be retained and the time limit on confidential status would be one year, renewable annually on receipt of a written request from the operator.

The lithothèque has a storage area of 19.8 m by 10.7 m. The cores are stored in wooden boxes and are accessed by reference to alphabetically designated sections and numbered rows and levels. The well index system consists of a series of well-data sheets, each of which gives details of well identification, well location (including a small sketch map), and information on any cores recovered.

No personnel are assigned full-time work in the repository. Currently, well data is compiled by one draftsperson and work on the examination and sampling of cores has not yet begun through lack of personnel. The examination area is 5.5 m by 3.7 m and contains two tables, a water supply, a binocular microscope and a rock saw for the use of visitors. The cores are retrieved by hand and are moved from the storage area to the examination room by means of hand-cart. The examination room is also made available to prospectors and private companies which do not have an office in Chibougamau, but have cores to be examined. The facility is open to the public from 08:30 to 12:00 and 13:00 to 16:30 hours, Monday to Friday. There is no charge made for access to information on file or for use of the core-examination room.

Lithothèque of Ministère de l'Énergie et des Ressources (secteur Mines), Québec

The MERQ Lithothèque at Québec contains about 13 719 m of core representing 157 petroleum-exploration wells, drilled to depths of more than 152.4 m (500 ft.) and including material dating back to about 1880. The holdings of the repository also include drill cuttings from 306 wells, a few cores from mineral-exploration holes drilled into Precambrian rocks, and several thousand field hand specimens mainly from Anticosti Island, but also from the Gaspé region. The cores in storage are those considered to be most representative for a given lithologic succession; at least one-half of the core is retained in each case. Nearly all the materials stored are available to be examined by the public after one year of confidential status following the termination of drilling.

The storage area of the repository is 36.6 m by 22.9 m and is 4.4 m high. The cores represent a variety of diameters and are stored in wooden and cardboard boxes, stacked on steel racks. Drill cuttings are stored in 14-gram glass vials and mainly in cloth bags arranged in drawers and cardboard boxes. The vials of cuttings are in 18 cabinets, each measuring 0.6 m by 0.6 m by 1.5 m and containing 12 drawers. The subsurface materials are accessed by well name and location. It is noteworthy that since 1983 drill cuttings are kept in polythene bags. The Anticosti and Gaspé specimens are stored on three racks, measuring 0.6 m by 7.3 m by 4.3 m. Information on the holdings of the repository may be obtained from the MERQ Centre de Diffusion de la Géoinformation (Documentation Technique); schedules of wells drilled in the St. Lawrence region and the Gaspé and Gulf of St. Lawrence area have also been compiled.

The staff of the repository consists of one person who works part-time on the referencing and warehousing of the holdings and also lays out materials for examination. The examination area is about 46.5 m^2 and contains three tables measuring 2.4 m long by 0.8 m wide by 0.8 m high and one table measuring 12.2 m long by 1.0 m wide by 1.1 m high; the last-mentioned table is reserved for core examination. There is a water supply for the washing of cores, but there is no equipment for the physical and chemical analysis of rock specimens. A manually operated rock splitter is available for repository users. Cores are retrieved for visitors by the repository worker with the aid of a forklift. There are no regulations concerning the sampling of the subsurface materials in storage. However, requests to sample should be made to the Service de la Géologique of MERQ which also handles all communications from intending visitors to the Québec Lithothèque. The facility is open to the public from 08:30 to 16:30 hours from Monday to Friday. Cores and drill cuttings may be examined free of charge.

Core analyses and drill stem tests from many petroleum-exploration wells are available to the public through company reports coded "GM" and on file in the "Documentation Technique" of MERQ. In general, data from petroleum-exploration wells are available in the drilling reports (coded "No GM"), which are on file in the "Documentation Technique" of MERQ and may be obtained on paper and on microfiche. A good starting point is the 1974 publication, "Data on Wells," which is available in English. There is very little hydrocarbon production in Québec at present and production data by well are obtainable through "Documentation Technique" and from the Service des Hydrocarbures de la D.G. Énergies conventionelles, 8 rue Cook, Québec (Québec) G1R 5H2.

Rock-Storage Facilities of Ministère de l'Énergie et des Ressources (secteur Mines) at Ste-Anne-des-Monts and Sept-Îles

There are no core-storage facilities currently in operation in the Gaspé – Îles-de-la-Madeleine mining district. However, there are plans to initiate such a repository before the end of 1984 at Ste-Anne-des-Monts, located about 80 km east of Matane. The initial core-storage capacity of the projected facility is to be 21 336 m.

The Côte-Nord/Nouveau-Québec district has no centralized core-storage facility to which public access is granted. The office of the Resident Geologist at Sept-Îles was opened in 1980 and at present has neither facilities nor support staff for core storage. Most cores from diamond drill holes are left in the field. The remoteness of the area and lack of roads to most of the drill sites guarantee high costs, associated with any eventual core-collection program. A list of all drill-hole locations in the district is available for public examination at the Regional Geologist's office, along with geological logs and geochemical analyses for most cores. In addition, there is a collection of rock samples from the main mineralized zones in the district. It is noteworthy that the Labrador Mining and Iron Ore Company has core-storage facilities at Schefferville and Sept-Îles, but these are not open to the public.

Newfoundland and Labrador

Sample and Core Repository of Newfoundland and Labrador Petroleum Directorate at Torbay

The Petroleum Directorate of the Province of Newfoundland operates a core-storage facility at Torbay, Newfoundland. At present 11 m of core, representing two offshore wells are stored in the repository. In the past, the government has had access to the part of a given core which was retained by the operator, though stored outside of the province. Beginning in 1983, private companies are required to provide the provincial government with not less than one-third of the cross-sectional area of any core retrieved. All samples and cores in storage have been supplied by the petroleum industry. The earliest materials in storage date back to 1965. Restrictions on the availability of data to the

public are due to the limited staff on hand at the repository. Samples from wildcat wells are held confidential for two years, whereas samples from stepout wells have confidential status for 60 days.

The storage area of the repository is 278.7 m^2. The cores are stored in cardboard boxes arranged on metal shelving. They are indexed according to core number, tray number, interval and amount recovered. The cores are accessed by well name. Bagged samples measuring 10.2 cm by 15.2 cm are stored in plastic tubs. Vialled samples are covered in plastic. Drill-stem-test samples are in non-reactive plastic containers and metal cans. A sample-inventory binder is kept at the Petroleum Directorate office.

The support staff of the repository consists of one off-site Petroleum Technician, who is responsible for cataloguing and physical storage, as well as casual help provided by students during the summer. Because of limitations on staff and facilities, there is no examination area at the storage facility. Consequently, there are no examination facilities at the Torbay repository. There is one binocular microscope for government use at the Petroleum Directorate office, Atlantic Place, Water Street; a sink and a work table are also available.

Core analyses, fluid analyses, and drill-stem-test data with non-confidential status are provided on request, but within the limitations of staff and resources. At the present time, there is no commercial production of hydrocarbons.

Core Libraries of Newfoundland and Labrador Department of Mines and Energy at Pasadena, St. John's and Goose Bay

There are three core-storage facilities maintained by the Newfoundland and Labrador Department of Mines and Energy at Pasadena, Newfoundland; at St. John's, Newfoundland, and at Goose Bay, Labrador. The cores were supplied by the mineral-exploration industry and amount to 141 457 m representing 1402 holes drilled in Labrador and insular Newfoundland. Complete cores are retained in storage. The core storage program was initiated in 1979. More than 95 per cent of the holdings of the core libraries are available for examination by the public. Some cores are currently stored on a confidential, temporary basis, that is, up to three years under conditions and terms that are similar to those applying to assessment reports. Requests for confidential storage of cores are treated on an individual basis. At present, a proposal to offer assessment credits to exploration companies to cover the cost of delivering cores to government facilities is under consideration. It is noteworthy that the recently amended Section 64 of the Mineral Regulations requires that no diamond drill cores or rotary drill cuttings be wholly or partially destroyed or removed from the province without permission of the Minister.

The Pasadena core library has a capacity of 200 000 m of core and currently contains approximately 114 000 m collected from drilling sites to the west of Gander. The repository has a ventilated room for the storage of radioactive cores and a humidity-controlled room for cores of rock salt. The core library at St. John's has a capacity of 60 000 m of drill core with about 12 000 m presently catalogued and stored. Most of the core is from eastern Newfoundland from the St. Lawrence area and from the silica-survey drilling program conducted by the provincial government during the nineteen-sixties. The Goose Bay core library has a capacity of 60 000 m of core and has room for future expansion; about 8600 m of core have been catalogued and placed in storage. The cores are stored in wooden boxes 1.5 m long, arranged on metal racks. Repository holdings are documented in a catalogue of drill holes from which cores are available. The catalogue is based on the N.T.S. map system and is accessed by means of a manual card file.

The Pasadena core library is staffed on a full-time basis by one geologist who catalogues the cores, assists in core collection, and handles user requests. The Project Geologist (Core Storage Program) is based at the St. John's repository and is responsible for core acquisition and all other duties necessary to maintain the program. The Goose Bay facility is not staffed on a full-time basis. The sizes of examination areas at the storage facilities are 41.8 m^2 at Pasadena, 18.6 m^2 at St. John's and 18.6 m^2 at Goose Bay. Examination facilities at each of the repositories comprise: examination tables and laboratory benches, a binocular microscope, a scintillometer, a magnetic susceptibility meter, an IP and resistivity meter, rock saws, core splitters, and a water supply. Retrieval of the cores is by means of manpower and hydraulic lifts. Visitors wishing to use the St. John's and Goose Bay facilities must contact the Project Geologist with a request for access one day in advance. The Pasadena repository is open to the public during regular office hours, from 09:00 to 17:00 hours. Patrons are asked to fill out a user record form for each hole. Guidelines for the sampling of materials in storage are currently in preparation. At present, user requests to sample cores are considered on the merit of each individual request and the amount and condition of the cores involved. Assay results and lithologic logs are available for all cores in storage.

New Brunswick

Core Repositories of New Brunswick Department of Natural Resources at Bathurst and Madran

A total of 108 043 m of diamond drill cores from holes drilled north of 47°00'00"N Latitude by mineral-exploration companies and the provincial Department of Highways is stored in the basement and a garage of the Regional Office of the New Brunswick Department of Natural Resources at Bathurst and in a steel building designed specifically for core storage at Madran, located approximately 9.4 km to the north of Bathurst. The cores are under the jurisdiction of the Geological Surveys Branch of the Mineral Resources Division. Complete cores are stored as far as possible. The earliest storage of subsurface materials in the Bathurst district by the Department of Natural Resources was in 1964. There is no restriction on the availability of the cores to users of repository facilities.

The areas in which cores are stored at the Bathurst and Madran repositories are 508.7 m^2 and 260.1 m^2 respectively. Storage space for cores at the Regional Office amounts to 288.0 m^2 in the basement and 220.7 m^2 in the garage. The cores are in wooden boxes arranged on steel racks, and are accessed with reference to area, company name, and company hole number. A catalogue of the holdings of the repositories is currently in preparation.

The support staff consists of a part-time technician. The Madran repository has an examination area measuring 4.3 m by 3.0 m, and a water supply for the washing of cores. At the Regional Office, there is a laboratory with a binocular microscope, a water supply, and a rock saw. There is no standardized call procedure for the materials requested by a user. Cores are retrieved by a technician using a forklift. Samples may be taken from cores on the condition that the results of the related study are supplied to the Department of Natural Resources. Users of the repositories are not normally granted access to the rock saw. The core-storage facilities are open to the public free of charge from 08:30 to 16:30 hours on weekdays.

Core Repository of New Brunswick Department of Natural Resources at Fredericton

The Mineral Resources Division of the New Brunswick Department of Natural Resources operates the York Street Core Repository in Fredericton. The repository is a one-storey concrete-block building which incorporates three unheated storage banks. The holdings of the facility include 16 398.5 m of core, representing 142 holes, drilled by private companies and government agencies between 46°00'00"N and 47°00'00"N Latitude since 1950. A policy of core reduction is carried out with reference to the lithologic associations in cored sections. Drill cuttings are also stored in the repository. All well data are documented in loose-leaf folders and on accompanying maps. Subsurface materials may retain confidential status at the request of the industrial operator. All other cores and cuttings are available to members of the public on request.

The overall floor area of the part of the facility designated for storage is 18.9 m by 9.8 m and cores and drill cuttings currently occupy 14.0 m by 7.6 m. Cores are stored on racks in the original boxes. The hole name (and/or number) and depth are marked on each box.

No support staff is assigned to the core repository. The examination area of the facility is 2.4 m by 4.9 m. Cores may be laid out for study on a counter top, measuring 0.6 m by 5.2 m. All cores must be retrieved by hand. The facility is open to the public from 08:15 to 16:30 hours, Monday to Friday. No fee is charged for use of the repository.

Soils and Minerals Laboratory of New Brunswick Department of Natural Resources at Fredericton

Cores and drill cuttings from holes drilled by industry and the provincial government since 1968 are stored in the Soils and Minerals Laboratory of the New Brunswick Department of Natural Resources located on College Hill Road, Fredericton. The facility is a one-storey, steel-clad, insulated building which is heated. The repository contains 14 630.4 m of core from 93 wells and core holes, as well as 195 072 m of drill cuttings from a total of 490 wells. Only continuous cores are stored. Loose-leaf folders and maps are used for documentation of the repository holdings. Users may examine all cores and cuttings in storage, except for materials which are of confidential status at the request of private companies.

The storage area of the facility measures 14.6 m by 13.1 m. The cores are stored in four metal core racks each 9.1 m long by 3.0 m high. Well cuttings are mainly stored in eight metal upright cabients with sliding wooden trays. Bulk drill cuttings are also stored in boxes measuring 1.2 m by 0.5 m, 1.2 m by 0.6 m, and 1.5 m by 0.2 m.

There is no support staff at the repository. The examination area of 3.0 m by 3.0 m includes a table, washing facilities, and a microscope. All cores are moved by hand. Only previously unsampled cores may be sampled. Permission is generally given to sample the bulk samples of drill cuttings. The repository is open to the public from 08:15 to 16:30 hours on weekdays. There is no fee charged for use of the core-storage facility.

Core Repository of New Brunswick Department of Natural Resources at Sussex

The holdings of the core-storage facility operated by the Geological Surveys Branch at Sussex comprise about 31 000 m of diamond drill core from south of 46°00'00"N Latitude donated by mineral-exploration companies since 1970. The repository occupies two closed-in wings of the southern New Brunswick Regional Office. In addition, there are several outdoor storage areas, each of which has a roof, but is open at the sides. The subsurface materials in storage include representative cored sections through mineralized zones and lithologic associations of particular interest which are retained in their entirety. Other cores undergo some degree of reduction. The cores may be examined by mineral-exploration geologists and prospectors on obtaining permission from the Regional Geologist.

The core-storage area is about 200 m^2. The cores are stored in regular, wooden core boxes. A list of the drill holes represented in the holdings of the repository is available for examination by visitors.

The holdings of the repository are under the jurisdiction of the Regional Geologist and staff under his supervision. There is no indoor examination area; most core examination is done outdoors during the summer. Assistance is provided for core retrieval which is all done by hand. A water supply is on hand and a binocular microscope is available at the Regional Office. Under exceptional conditions, permission is granted for the slabbing of small samples. Visitors may examine cores between 08:15 and 16:30 hours, Monday through Friday. There is no charge for use of the core-storage facility.

Nova Scotia

Drill-Core Repository of Nova Scotia Department of Mines and Energy at Stellarton

Approximately 252 000 m of core representing 1800 drill holes are stored in the Stellarton core repository of the Nova Scotia Department of Mines and Energy. The cores, cuttings, and other subsurface materials come from mineral and petroleum exploration by private companies and from drilling programs carried out by the Department. Entire cores are stored; although at present there is no policy of data reduction, there will be a reduction in core volume, possibly by in the order of 10 per cent, when acquisition of new core reaches a stable level and a review of core quality and the degree of repetition can be ascertained. The earliest storage is represented by one hole drilled in 1951. All cores are put into storage on an "open" basis. Assessment-report information has a two-year confidentiality period.

The drill-core repository comprises 1) three buildings each with arch-rib design set on a concrete slab and floor space measuring 15.8 m by 48.8 m in which all cores are palletized; 2) one building of wood construction on a concrete slab with a floor area of 9.1 m by 24.4 m in which cores are stored on racks; and 3) one building of concrete-and-tile construction and with a floor area of 9.1 m by 30.5 m in which racks and pallets are used. The wooden building incorporates an office area and is equipped with dehumidifiers. The total storage area in the five buildings amounts to 2.6 m^2. More than 90 per cent of the drill cores are palletized and stacked to a height of 3.7 m, whereas the remainder is on racks. Rock and large crushed samples are stored in plastic crates and stacked on pallets. Small samples in vials are to be stored in newly acquired plywood cabinets with slotted trays. Access is by N.T.S. and company hole designation. Plastic sleeves are employed to protect potash cores from moisture. Building plastic has been used to protect cores which are stored outside. The cataloguing of drill-hole data, collection of drill logs and computerization of all recorded data are under way. However, the completion of this work will take several years. A short catalogue of cores in storage is scheduled for completion by the end of 1983.

The support staff at this core-storage facility comprises two Mineral Technicians who spend about 60 per cent of their time retrieving, storing and cataloguing drill cores. The average casual help is 1.5 person-years.

Core examination is carried out in three areas, totalling 190 m^2. Since the core-storage areas are not manned on a full-time basis and the holdings are not fully catalogued, personal contact on the part of visitors is required in the identification of materials for retrieval. Cores are transported from the storage location to an examination area by a technician using a forklift. The examination facilities include several permanent benches with additional tables provided as required; water is available in each examination area. Microscopes, diamond saws, and splitters are available by request. The core-storage facilities are open to the public from 08:30 to 16:30 hours during weekdays. There is no fee charged at present for use of the core-storage facilities, although a fee may be introduced in the near future. Departmental staff should be notified in advance of a visit by an intending user.

Other subsurface data on file to which public access is permitted are assessment reports and departmental studies on file available on microfiche.

Core-Storage Facility of Canada Oil and Gas Lands Administration at Bedford Institute of Oceanography, Dartmouth

Samples, representing an aggregate sedimentary thickness of 685 800 m penetrated by about 210 offshore wells and 2500 m of core from 103 offshore wells are stored in the Bedford Institute of Oceanography, Dartmouth, by the Maritime Office of Canada Oil and Gas Lands Administration (COGLA). The subsurface materials in storage come from petroleum-exploration wells, drilled by private industry in Hudson Bay, the Labrador Shelf, the Nova Scotian shelf, Grand Banks and northeast Newfoundland, Northumberland Strait, Gulf of St. Lawrence, and the Bay of Fundy. There is no policy of data reduction in the repository. The period of confidentiality lasts for two years after the well-completion date for exploration wells, but is 90 days after completion for step-out and delineation wells. All interpretative studies dealing with biostratigraphy, seismic data, source rocks, geochemistry, and related topics are held confidential for five years.

The storage area of the repository operated by COGLA is 929 m^2. Unwashed samples are kept in plastic-lined cloth bags measuring 10.2 cm by 12.7 cm which in turn are stored in cardboard boxes 76.2 cm long by 25.4 cm wide by 10.2 cm high. The boxes of bulk unwashed samples are on racked pallets. Washed samples are in 7-dram plastic vials arranged in trays which are stored in steel cabinets. Each well is assigned a reference number and all related subsurface materials are identified by means of that number. Sidewall cores are stored in 7-dram plastic vials in steel storage cabinets, as are the collections of picked micropaleontology and palynology slides. The holdings of the storage facility are documented in a schedule of wells; also available for public examination are well completion reports, geophysical well logs, procedures and guidelines for drilling offshore, oil and gas drilling regulations, and a series of released geological and geophysical reports.

A Laboratory Supervisor and a Repository Technician constitute the staff of the facility. Their duties are to receive and ship geological samples, to curate and catalogue well samples and related information, and to process selected samples for the extraction of microfossils. The examination facilities consits of one room, measuring 6.1 m by 6.7 m and containing layout tables for cores and six microscope desks, and another room which is 3.1 m by 6.7 m and has layout tables for studies of cores and samples. Cores and unwashed samples are retrieved by forklift. It is necessary to sign out all materials requested for examination. Requests to sample materials in storage must be submitted in writing with an outline of the type of study to be conducted. The amount of sampling and the degree of duplication of studies is regulated. If permission to sample is granted, the size of sample is determined with reference to the amount remaining and also the nature of the study. All unused sample is to be returned to the facility and a copy of the results of the study should be forwarded to the COGLA office in Ottawa. The repository is open to the public from 08:00 to 16:00 hours on weekdays. The examination space, information reports, and materials for study are made available to the public free of charge.

There is no computerized data storage/retrieval system in operation in the facility at present because of the limited size of the latter. However, there are plans to institute such a system. Geochemical analyses of selected materials in storage and fluid analyses are carried out by the Geological Survey of Canada at the Institute of Sedimentary and Petroleum Geology in Calgary. These data become available after a period of five years following rig release. Core analyses contracted out by operators to service companies are in the public domain on release of the well completion report. This restriction is also applicable to data from drill stem tests.

Atlantic Geoscience Centre, Bedford Institute of Oceanography, Dartmouth

The Atlantic Geoscience Centre (AGC) (a division of the Geological Survey of Canada) through its program Support Subdivision, at the Bedford Institute of Oceanography (BIO), curates, catalogues, and publishes indexes of marine geological samples. They are collected by in-house scientists, other laboratories at BIO, Atlantic province universities, consulting and exploration companies.

Earth scientists at BIO began to collect marine geological sediments in 1962-1963. The first material collected was from remote parts of the Arctic Archipelago, Prince Gustaf Adolph Sea, Prince Patrick Island, and McClure Strait. It is still the only sediment available from some of these areas.

The sediment sample collection at BIO consists of approximately 3200 seabed surface samples, 3800 unconsolidated sediment core sections, 50 drill core samples, water samples, and processed sample material. Samples are gathered in areas ranging from within 450 km of the North Pole to as far south as the Senegal continental shelf and the coast of Peru. Collection depths may vary from 5500 m in the Sohm Abyssal Plain in the Atlantic Ocean to above the high water mark at Martinique Beach, Nova Scotia. The largest number of samples are from the Eastern Canadian and the Arctic offshore regions including a large suite of surficial samples from Hudson Bay, collected in 1965.

Some onshore well samples collected since 1909, for Ontario, Québec, New Brunswick, Prince Edward Island and Nova Scotia, are also held at the storage facilities.

The purpose of curation at AGC is to ensure quality control of sample material which is maintained in as close to original condition as is possible. Certain standard information is provided before samples are entered into the sample curation system; cruise number, sample number, latitude and longitude, geographic location, and chief scientist's name. Subsequently, cataloguing information may become more diversified according to the identification requirements of each sample type.

The sample box inventory exists for processed samples stored in standard sized boxes, which have a unique identification number that is recorded along with standard information in a computer file. In the future, the computer file will be expanded to include a list of all the sample numbers

contained in each sample box. Grab samples are stored in plastic pails labelled with the cruise and sample numbers and large bulk dredged samples are stored in labelled crates. Because of the growing shortage of repository space, alternative methods of storing grab and dredge samples are being investigated. All cores are kept in cold storage, where they are retained until investigation by the collecting scientists whose requirements take priority over those of outside workers. Requests to obtain material from soft-sediment holdings at the facility are considered by an ad hoc committee composed of those scientists most familiar with the materials.

Several steps are followed to ensure uniformity when cataloguing, storing, subsampling, and removing sample material. A standard core history log accurately records information through the collection, transport and storage stages. Standard core description forms, as well as forms for subsampling, splitting, and nondestructive testing, provide an accurate core history. Information policies, as well as logs and related forms, are part of a reference package prepared for use by chief scientists on every sampling cruise. Lastly, a filing system organizes all the sample information for reference or updating. There is also ongoing work to round out the information framework on older samples, gathered prior to these procedures being put in place.

The repository support staff consists of one contract person to catalogue and curate all subsurface materials. Facilities consist of two large cold rooms, a freezer and an examination area consisting of a wet lab. A Hewlett Packard 43805N radiographic unit, a radiograph viewer and core splitter are also available. Users must complete sample loan chits prior to access to the holdings of the repository. All sampling of marine soft-sediment cores and samples must be approved by the responsible scientist and a written request to sample must be provided by the user, stating the purpose of the study. The size of a subsample is not to exceed one half of the width of the working half of a core and no sampling of the archival half is permitted. Any scientific reports, utilizing the data thus obtained, are required. The facility is open to investigators between 08:00 and 16:00 hours daily from Monday to Friday.

Prince Edward Island

Core Repository of P.E.I. Department of Energy and Forestry at Charlottetown

The core repository of the Prince Edward Island Department of Energy and Forestry at Charlottetown contains approximately 914 m of diamond-drill-hole core from mineral-exploration ventures and engineering investigations. The storage facility is in a building belonging to the P.E.I. Department of Fisheries and has been in operation since September, 1983. The cores are from wells dating back to August 1982, and are retained in their entirety in wooden boxes. No restriction has been placed on availability of the cores for examination by the public.

The repository has a storage area of 6.1 m by 15.2 m and an unused part of this, measuring about 6.1 m by 9.1 m, currently serves as an examination area. The facility is open to the public at times arranged by contacting the P.E.I. Department of Energy and Forestry. There is no full-time support staff to assist with the lifting of cores. No sampling regulations have been established.

Yukon

The H.S. Bostock Core Library of Indian and Northern Affairs Canada at Whitehorse

The H.S. Bostock Core Library in Whitehorse is operated by the Exploration and Geological Services Division of Indian and Northern Affairs Canada (INAC). The cores for the most part are from the surface drilling operations of mining exploration companies in Yukon; a minor proportion comes from underground development drilling in mines, as well as from geotechnical evaluation projects, conducted by the Northern Canada Power Commission. The repository contains 100 000 m of core which is mainly BQ with subordinate amounts of HQ, NQ, AQ and EQ. In general, complete cores are stored where possible; on some properties only cores from holes, regarded as particularly significant, are taken for storage. Cores retain confidential status as long as the property remains in good standing, but may be examined with the permission of the property owner. About 30 per cent of the holdings of the facility have nonconfidential status.

The repository has a total area of 900 m^2. Office space and laboratories account for 148 m^2 of this and core racks occupy the remainder. The floor of the building is poured concrete. Six garage-type doors have been installed to permit entry by large trucks. The offices, labs, and storage area are heated and portable heat is available on request for extended core examination. The cores are stored on steel racks, 3.6 m high. The open core boxes are numbered and the storage racks have alphanumeric designations. Holdings are documented in two manual card indexes in which reference to cores is by company and N.T.S. map sheet respectively.

One geological technician works as Core Librarian during 30 per cent of his time. He is responsible for acquisition, storage, retrieval, and maintenance of the core collection. There is no one permanently in attendance at the facility and intending users must contact the Exploration and Geological Services Division to arrange for access. The Core Librarian is available to assist users of the facility during normal working hours. Arrangements can be made to use the repository after hours and during weekends. Cores are retrieved by means of two mobile lift trucks, one of which has a work platform, permitting access to the uppermost storage racks. Examination facilities available to the public include one binocular microscope, one binocular polarizing microscope and one petrographic microscope, as well as storage cabinets and a drafting table. Cores may be examined in front of the storage racks on a rolling table and on the forklift platform or they may be transported to the rock-saw room. The latter area is 6 m by 6 m and contains three rock saws (9-, 16- and 18-inch) and a core splitter, as well as two sinks and assorted work tables. Members of the mining and prospecting community and students are permitted to use the rock saws. Sampling of cores is regulated on an ad hoc basis.

Northwest Territories

The C.S. Lord Core Library of Indian and Northern Affairs Canada at Yellowknife

Cores and rock samples from N.W.T. Mineral Claim properties, mines, prospects, and mapping programs are stored at Yellowknife in the C.S. Lord Core Library operated by the Geology Division of the Northern Affairs Program, Indian and Northern Affairs Canada. The current holdings of

the repository comprise approximately 19 964 m of core representing 43 properties. At present, most cores (90 per cent) are complete sections from the holes drilled. However, there are plans to reduce the amount of core stored by retaining only representative lithologic sections when available storage space is significantly reduced. All subsurface materials may be examined by the public after expiry of a three-year confidential period. There is also a collection of hand specimens taken by the geological staff of INAC to be representative of surface and underground lithologic sections at both past and present production locales. Samples collected during mapping projects are also stored in the repository. There are plans to carry out a reinventory and indexing of all hand samples in the near future.

The Core Library is a metal building measuring 36 m by 11 m by 4.6 m. The space utilized for rock and sample storage is about 24.4 m by 9.1 m and there is a receiving area of approximately 11.3 m by 8.5 m. Cores are stored in the original boxes and are reboxed only if the latter show marked deterioration. The core boxes are stored in steel core racks measuring 1.5 m wide by 3.0 m high by 12.2 m long. Core racks are able to hold a total of approximately 60 167.5 m of AQ core, 52 646.6 m of BQ core, 42 117.3 m of NQ core, or 31 587.9 m of HQ core. The cores are stored in numbered sections (1 through 43) of core racks. Location references are accessed by rack number and shelf number in a file with information on the property, such as logs, location, NTS number, and name of owner. At present, plans are under way to use index cards, cross-referenced by NTS number, company name, claim group name, and commodity. Hand samples are stored in trays in metal storage racks measuring 0.1 m by 0.1 m by 3.0 m. Each sample rack can hold 35 sample trays.

The staff of the C.S. Lord Core Library consists of one permanent employee who manages the core-storage facilities; a student is hired to assist the Core Library Manager from May to September. The core-logging and examination room measures 19.8 m by 4.6 m and contains three metal tables, each 1.5 m by .46 m, as well as air and water lines. The rock-cutting and rock-polishing room is 5.2 m by 7.6 m and includes two operating 18-inch and 36-inch slab saws, as well as one 24-inch slab saw undergoing repairs. There are also one core saw, one trim saw, and one thin-section machine. In addition, two 8-inch laps, one stereo-microscope, and one 10-inch Di-Mat cut-off machine are on order. One room measuring 4.3 m by 4.3 m is used for grinding and polishing with one 27-inch vibro-lap and two 27-inch Rocipro-Laps on order. There is also a room 3.4 m by 3.7 m with crushing and pulverizing equipment and one drying oven. The retrieval of the cores for examination is by hand, but a battery-operated hydraulic lift is used for cores in high parts of racks and for heavy loads. Portions of cut samples of cores and hand samples are removed by government workers for geochemical analysis and preparation of thin sections. However, no removal of specimens by the public is permitted. The use of slabbing and polishing equipment by INAC geologists and university students and professors is permitted under the supervision of the Core Library Manager. Members of the public may submit requests for slabbing of their samples and this is done by the Core Library Manager if time is available. The Core Library is open from 08:30 to 12:00 hours and from 13:00 to 17:00 hours from Monday to Friday. There is no fee structure for use of the core-storage facilities.

Core Storage by Private Industry

Many private companies operate storage facilities which contain cores and drill cuttings recovered during their own commercial drilling operations. In general, access to the materials held in these repositories and use of the core-examination facilities are restricted to the personnel of the company and its partners in a particular drilling venture.

A number of private companies with Calgary offices, such as Canadian Rock Surgery Ltd., Stacs Record Centre Ltd., and the Versatile Cold Storage Corporation (Albertal Division), store cores and rock samples for other industrial operators. Versatile Cold Storage, for example, has a total storage area of 30 480 m^2 at the Calgary repository and the proportion used for rock storage varies according to need. The company stores cores and suites of rock specimens for oil companies and university researchers in a series of temperature-controlled room: -47°C for blast-freezing (rapid freezing of a rock sample and interstitial fluids), -20°C, -2 to -1°C for thawing (tempering rooms), -1 to 0°C, and 2 to 4°C. There is humidity control in rooms, normally reserved for storage of materials, other than rocks and unconsolidated sediments. Canadian Rock Surgery in Calgary stores cores and outcrop samples of materials which include tar sands and coals, as well as samples in vials for a limited number of clients. Tar-sand specimens awaiting processing for resource evaluations are subjected to freezer storage at -20°C and are later placed in regular storage conditions at -5°C. Plastic sleeving is employed to aid in the retention of interstitial fluids. Stacs Record Centre Ltd. operates a records management system for all types of exploration data, which are accessed through a computer-sorted index. Other private companies, such as Chemical and Geological Laboratories Ltd. and Core Laboratories Canada Ltd., store subsurface materials for clients, although this function is subordinate to their main activity which is to carry out various analyses of the rocks and incorporated fluids. Both of these companies employ freezer units at their Calgary laboratories. Access to the materials stored by these and similar companies is granted only to workers representing the owners of repository holdings.

Deep-Sea Cores from Drill Sites in and near Canadian Waters

West Coast Repository of Deep Sea Drilling Project at Scripps Institution of Oceanography, La Jolla, California

Cores from Deep Sea Drilling Project (DSDP) sites drilled off the west coast of Canada are stored in the West Coast Repository of DSDP, A-031, Scripps Institution of Oceanography, La Jolla, California 92093. These are cores from Holes 177 and 177A referable to DSDP Leg 18 and located at the northwestern end of Paul Revere Ridge off the northwest tip of Vancouver Island. The core recovered from Hole 177 amounted to 9 m, whereas 136.5 m were recovered from Hole 177A. Additional operational data pertaining to these holes are provided in Table 2. The cores and related data from Holes 177 and 177A are available for examination by members of the international scientific community. In general, the main restriction on availability of such materials for examination by the public takes the form of a "privileged proprietory hold" on cores and data so that the scientists participating in the drilling operation can write up their initial research results. The duration of confidential status is one year from the drilling date or two months after publication of the initial core descriptions.

The cores are split into a working half and an archiving half and are stored as 1.5 m sections in plastic D-tubes. Most cores are stored under refrigeration (34° to 40°F), with the exception of cored sections through evaporite sequences which are kept at ambient temperature. There is no automatic control of humidity; wet sponges are employed where increased humidity is required. The call codes for cores in storage are entirely numerical and comprise the

Table 2. Deep Sea Drilling Project holes drilled in and adjacent to Canadian waters from August 1968 to December 1983

Leg	Hole No.	Site Position	Date Occupied	Water Depth (m below sea level)	Penetration (m below sea floor)	Core Recovery (m)	Age of Oldest Sediment
12[1]	111	Lat: 50°25.57'N Long: 46°22.05'W	25-28.06.70	1797	250	15.4 (32.1%)	Albian
	111A				199	59.2 (63.0%)	Eocene
	112	Lat: 54°01.00'n Long: 46°36.24'W	29.06.70 -03.07.70	3657	664	74.2 (51.2%)	? mid-Paleocene to Early Eocene
	112A				124	32.4 (72.0%)	mid-Pliocene
	113	Lat: 56°47.40'N Long: 48°19.91'W	04-08.07.70	3619	923	30.5 (40.0%)	? Miocene
18[2]	177	Lat: 50°28.18'N Long: 130°12.30'W	23-27.06.71	2006	9	9 (100.0%)	Early Pliocene
	177A				507	136.5 (58.5%)	Early Pliocene

[1] Laughton, Berggren, et al. (1972)
[2] Kulm, von Huene, et al. (1973)

cruise (leg) number (1-96), site and hole number, core number (increasing with increase in depth), and section number (generally 1 to 7). Samples from cores are referenced by means of the interval in centimetres from the top of the appropriate section (0-150 cm). Small segments cut from the cores and frozen for research on the organic geochemistry are stored in the repository as are samples of water and squeezed mud awaiting work on the inorganic geochemistry The holdings also include derivative materials, such as thin sections, smear slides, and photographic records of the cores. Samples returned after scientific investigation and related sample residues are also stored. Details of data available and how to obtain them are given in a booklet published by the Deep Sea Drilling Project (1983). The curation of cores and data is the responsibility of the Science Services Group of DSDP, whereas data retrieval services are provided by the DSDP Information Handling Group.

The West Coast Repository is staffed by four career employees: an Assistant Curator who is also responsible for the curation of physical materials and data in the East Coast Repository; two museum scientists who have curatorial duties and assist visitors to the facility; and an assistant museum scientist who assists visitors and handles sample requirements received by correspondence. The examination area is about 65 m^2 and includes tables on which cores are laid out; binocular microscopes and petrographic microscopes are available for users. In general, space limitations restrict the number of users occupying the examination area at a particular time to four sampling sets, although on occasion saw-horses and boards are set up in the adjacent parking lot to accommodate the needs of additional visitors. Users are admitted to the facility by appointment only and advance notice of 5 to 8 months should be given. Visitors must fill out a sample request form specifying the cored interval to be examined. The cores are removed from storage manually by a member of the Science Services Group. Sampling of cores is permitted, but is carried out by or under the supervision of a staff member. Regulations for sampling are documented in the DSDP series of Initial Reports. The repository is open to the public from 08:00 to 16:30 hours on weekdays.

East Coast Repository of Deep Sea Drilling Project at Lamont-Doherty Geological Observatory, Palisades, New York

Cores from DSDP sites drilled off the east coast of Canada are stored in the East Coast Repository of DSDP, Lamont-Doherty Geological Observatory, Palisades, New York 10964. The holes located in or near Canadian waters are 111 (15.4 m of core recovered), 111A (59.2 m), 112 (74.2 m), 112A (32.4 m) and 113 (30.5 m). Site 111 is located on Orphan Knoll at the edge of the continental rise to the northeast of Newfoundland; the locations of Sites 112 and 113 are in the southern part and axis of the Labrador Sea respectively. Additional data concerning these holes are presented in Table 2.

The user-oriented description of facilities and account of availability of materials at the West Coast Repository of DSDP are for the most part also applicable to the East Coast Repository. A significant difference in the type of material stored lies in the absence of frozen samples and specimens of interstitial waters which are stored in the West Coast Repository. The examination area is about 123.1 m^2 and contains similar facilities to those available to users at the Scripps Institution. The East Coast Repository is open to visitors from 09:00 to 17:00 hours, Monday to Friday.

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Appendix I

Questionnaire on storage of cores from wells drilled in Canada

Subject .....

Parent Organization .....

Headquarters Address .....

.....

Address of Repository .....

.....

Representative .....

Interviewed by.....at.....on.....
(place) (date)

1. General Information on Data Acquisition

   1.1 Sources of cores, drill cuttings, etc., and date of earliest storage

   1.2 Comments on repository design (special features, etc.)

   1.3 Support staff and duties

   1.4 Documentation of holdings (schedule of wells, computer printouts on demand, etc.)

   1.5 Availability of information to public (duration of confidential status, special restrictions)

   1.6 General statement on services provided to public (including fee structure)

2. Utilization of Storage Space

   2.1 Size of storage area (cores, drill cuttings, other materials)

   2.2 Total core footage in storage and number of wells represented

   2.3 Disposition of cores and drill cuttings (how stored, nature of call codes, etc.)

   2.4 Approach to data reduction (if any), i.e., retention of only part of core, etc.

   2.5 Special conditions of storage (plastic sleeves, polythene bags, etc.)

   2.6 Other subsurface materials (sidewall cores, mine-shaft samples, etc.)

Appendix 1 (cont'd)

3. Core-Examination Facilities

   3.1 Size of examination area

   3.2 Hours open to public

   3.3 Call procedure, e.g., forms to be filled in, index systems, etc.

   3.4 Physical retrieval (manpower, forklifts, etc.)

   3.5 Examination facilities (number of tables, water washing cores; binocular microscopes, etc.)

   3.6 Sampling regulations (permission to sample, slab, etc.; size of samples; public use of rock saws)

4. Public Access to Other Subsurface Data on File

   4.1 Computerized storage/retrieval system

   4.2 Petrologic/geochemical analyses

   4.3 Core analyses

   4.4 Fluid analyses

   4.5 Drill stem tests

   4.6 Petroleum-production data (by well, pool, district, etc.)

   4.7 Other considerations

Appendix 2

Storage of cores, drill cuttings and other rock specimens from wells drilled in Canada

REPOSITORY	GOVERNMENT AGENCY	DISTRIBUTION OF WELLS	HOLDINGS	STAFF
1. Ministry of Energy, Mines and Petroleum Resources Core Laboratory, Box 6880, FORT ST. JOHN, British Columbia V1J 4J3	Ministry of Energy, Mines and Petroleum Resources, Parliament Buildings, VICTORIA, British Columbia V8V 1X4	Land area of British Columbia	68,691 m of core from 5,850 wells, drill cuttings	3 (and support staff)
2. Pacific Geoscience Centre, 9860 West Saanich Road, P. O. Box 6000, SIDNEY, British Columbia	Geological Survey of Canada, 601 Booth Street OTTAWA, Ontario K1A 0E8	Offshore western Canada	marine soft-sediment cores from 450 wells	1
3. Core Research Centre, 3545 Research Way N.W., CALGARY, Alberta T2L 1Y7	Energy Resources Conservation Board, 640 - 5th Avenue S.W., CALGARY, Alberta T2P 3G4	Alberta, excluding Precambrian Shield	1,000,000 m of core; about 5,000,000 vials of drill cuttings	41
4. Mineral Exploration Sample Storage Facility, Alberta Research Council, 11547 - 160th Street EDMONTON, Alberta T5M 3V9	Alberta Geological Survey, Alberta Research Council, 3rd Floor, Terrace Plaza, 4445 Calgary Trail South, EDMONTON, Alberta T6H 5R7	Alberta, including Precambrian Shield	8,891 m of core from 92 holes	1 researche.
5. Oil Sands Sample Bank, Highway 16E and 17th St., EDMONTON, Alberta	Alberta Research Council, 11315 - 87th Avenue, EDMONTON, Alberta T6G 2C2	Athabasca, McMurray and Peace River districts of northern Alberta	122 m of core from 5 wells; 40 tons of bulk oil sand	3
6. Core and Sample Repository, Institute of Sedimentary and Petroleum Geology, 3303 - 33rd Street N.W., CALGARY, Alberta T2L 2A7	Geological Survey of Canada, 601 Booth Street, OTTAWA, Ontario K1A 0E8	Onshore and offshore north of 60° 00' 00"N Latitude, west-coast offshore (cores and cuttings); B.C., Alta., Sask., Man., east-coast offshore (cuttings)	53,340 m of core from 350 wells; drill cuttings	2
7. Subsurface Geological Laboratory, 201 Dewdney Avenue East, REGINA, Saskatchewan, S4N 4G3	Saskatchewan Energy & Mines, Toronto-Dominion Building, 1914 Hamilton Street, REGINA, Saskatchewan S4P 4V4	Southern Saskatchewan	304,800 m of core from about 10,000 wells; drill cuttings	8
8 Precambrian Geological Laboratory, 1310 La Ronge Avenue, P. O. Box 5000 LA RONGE, Saskatchewan S0J 1L0	Saskatchewan Energy & Mines, Toronto-Dominion Building, 1914 Hamilton Street, REGINA, Saskatchewan S4P 4V4	Northern Saskatchewan	30,534 m of core from 707 holes	2
9. Phanerozoic Drill-Core Library, Building 12, University of Manitoba Campus, WINNIPEG, Manitoba	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG, Manitoba R3C 4E3	Southwestern Manitoba	66,700 m of core from 2,500 wells; drill cuttings	staffing as required from central geological laboratory
10. Phanerozoic Drill-Core Library, Brady Road at South Perimeter Hwy., WINNIPEG, Manitoba	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG, Manitoba R3C 4E3	Southwestern Manitoba		staffing as required from central geological laboratory
11. Precamorian Drill-Core Library, Brady Road at South Perimeter Hwy., WINNIPEG, Manitoba	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG, Manitoba R3C 4E3	Mainly southeastern Manitoba	11,600 m of core	2 (headquarters)
12. Precambrian Drill-Core Library, c/o Conservation Officer, Dept. of Natural Resources, 675 Halstead Street, LYNN LAKE, Manitoba	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG, Manitoba R3C 4E3	Lynn Lake greenstone belt, northern part of Kisseynew basin, northern Manitoba in general	24,300 m of core	no
13. Precambrian Drill-Core Library, c/o Manitoba Department of Energy and Mines, Mining Engineering Section, Provincial Bldg., 59 Elizabeth Drive, THOMPSON, Manitoba R8N 1X4	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG, Manitoba R3C 4E3	Thompson district of northern Manitoba	27,500 m of core	no

Appendix 2 (cont'd)

INDEXING	CONFIDENTIAL STATUS	FEES	DATA REDUCTION	EXAMINATION FACILITIES	SAMPLING	OTHER SERVICES
well authority numbers on manual card system	variable duration	yes	no	tables, water supply	yes; size limit set on samples	petrologic/geochemical analyses, core analyses, fluid analyses, DST data, hydrocarbon production data
sample number, location, date, etc. on computer file	no	no	no	laboratory space	yes	no
manual card system	one year	yes	no	very extensive	yes	other subsurface data available from ERCB
computer file	one year or more	no	yes, in areas of high drilling density	tables, water supply and microscope	yes, but restricted	mineral assessment files of company reports on microfiche
computer file in preparation	no restrictions	yes (samples)	not applicable	at Alberta Geological Survey premises	samples are sold commercially for research	oil analyses, connate water analyses from Sample Bank; other data from AGS
card index files, schedules of wells	wild cats 2 years, field wells 60 days, (federal); one year and 30 days (provinces)	no	no	tables, water supply	yes	well history reports for federally administered lands
card index file; computer file	wildcats one year, field wells one month; other special restrictions	yes	no	tables, water supply	yes	other subsurface data available from Geodata Section
core inventory by M.T.S.; paper file (maps, logs, Sections, assays)	no	no	yes	tables, water supply, microscopes	yes	assessment files and special mineralized core collection file
published index, schedule of wells, well card index	wildcats one year (Hudson Bay area 2 years)	no, but fee schedule pending	no	tables, water supply, microscope	yes	other subsurface data available from Petroleum Branch
published index, schedule of wells, well card index	wildcats one year (Hudson Bay area 2 years)	no, but fee schedule pending	no	tables, water supply	yes	other subsurface data available from Petroleum Branch
manual card index, map index	confidential if property in good standing	no	no	tables, heated area, water supply	yes	assessment files available from Geoscience Data Section
manual card index, map index	confidential if property in good standing	no	no	tables, heated area	yes	assessment files available from Geoscience Data Section
manual card index, map index	confidential if property in good standing	no	no	tables, heated area	yes	assessment files available from Geoscience Data Section

REPOSITORY	GOVERNMENT AGENCY	DISTRIBUTION OF WELLS	HOLDINGS	STAFF
14. Precambrian Drill-Core Library, c/o Mining Recorder, Provincial Building, 3rd & Ross Avenue, THE PAS, Manitoba R9A 1M4	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG, Manitoba R3C 4E3	Flin-Flon - Snow Lake district of northeastern Manitoba	64,000 m of core	no
15. Petroleum Resources Laboratory, 458 Central Avenue, LONDON, Ontario N6E 2S5	Ontario Ministry of Natural Resources, 77 Grenville Street, TORONTO, Ontario M5S 1B3	Onshore and offshore (Lake Erie) southwestern Ontario, southeastern Ontario, onshore Ontario part of Hudson platform	>37,000 m of cores from 750 wells; drill cuttings from 6,400 wells	7
16. Larder Lake Mining Division Diamond Drill Core Library, MNR Kirkland Lake District Office, P. O. Box 129, SWASTIKA, Ontario P0K 1T0	Ontario Ministry of Natural Resources, 77 Grenville Street, TORONTO, Ontario M5S 1B3	Larder Lake Mining Division of northern Ontario	60,960 m of core	1 (and 1 part-time)
17. Diamond Drill Core Library, 64 Church Street, SAULT STE. MARIE, Ontario	Ontario Ministry of Natural Resources, 77 Grenville Street, TORONTO, Ontario M5S 1B3	Sault Ste. Marie Mining Division of north-central Ontario	27,432 m of core	2
18. Porcupine Mining Division Diamond Drill Core Library, MNR Timmins District Office, 896 Riverside Drive, TIMMINS, Ontario P4N 3W2	Ontario Ministry of Natural Resources, 77 Grenville Street, TORONTO, Ontario M5S 1B3	Porcupine Mining Division of northern Ontario	36,576 m of core in storage; 30,480 m in temporary locations	1 (and 1 part-time)
19. MNR Northeastern Regional Office, 199 Larch Street, SUDBURY, Ontario P3E 5P9	Ontario Ministry of Natural Resources, 77 Grenville Street, TORONTO, Ontario M5S 1B3	Sudbury Mining Division of northeastern Ontario	about 1,000 m of core at McFarlane Lake	no
20. Thunder Bay Mining Division Diamond Drill Core Library, c/o MNR North Central Regional Office, 435 James St. South, THUNDER BAY, Ontario P7C 5G6	Ontario Ministry of Natural Resources, 77 Grenville Street, TORONTO, Ontario M5S 1B3	Thunder Bay Mining Division of north-central Ontario	11,369 m of core	no
21. Canada Centre for Inland Waters Core Repository, 867 Lakeshore Road, BURLINGTON, Ontario	Canada Centre for Inland Waters, P. O. Box 5050, BURLINGTON, Ontario L7R 4A6	Offshore southern Ontario (Great Lakes); selected small Ontario Lakes	lacustrine soft-sediment cores	no
22. Ministère de l'Énergie et des Ressources du Québec, Lithothèque de Rouyn, 60 rue Bernatchez, ROUYN, Québec	Ministère de l'Énergie et des Ressources du Québec, 1620 Boulevarde de l'Entente, QUEBEC, Québec G1S 4N6	Noranda-Rouyn district of northwestern Québec	176,000 m of core; rock samples	3
23. Ministère de l'Énergie et des Ressources du Québec, Lithothèque de Val d'Or, 840 5-ième Ave., VAL D'OR, Québec	Ministère de l'Énergie et des Ressources du Québec, 1620 Boulevarde de l'Entente, QUEBEC, Québec G1S 4N6	Val d'Or - Matagami district of northwestern Québec	22,723 m of core; rock and ore samples	1 (and 1 part-time)
24. Ministère de l'Énergie et des Ressources du Québec, Lithothèque de Chibougamau, 375 3-ième Rue, CHIBOUGAMAU, Québec G8P 1N4	Ministère de l'Énergie et des Ressources du Québec, 1620 Boulevarde de l'Entente, QUEBEC, Québec G1S 4N6	Chibougamau district of northern Québec	18,288 m of core from 120 wells	no
25. Ministère de l'Énergie et des Ressources du Québec, Lithothèque du Québec, 650 rue Godin, Porte no. 5, Ville Vanier QUEBEC, Québec	Ministère de l'Énergie et des Ressources du Québec, 1620 Boulevarde de l'Entente, QUEBEC, Québec G1S 4N6	Onshore St. Lawrence and Gaspé regions of southern and southeastern Québec, Anticosti Island	13,716 m of core from 157 wells; drill cuttings from 306 wells; rock samples	1 part-time
26. Newfoundland and Labrador Petroleum Directorate, Sample and Core Repository, TORBAY, Newfoundland	Newfoundland and Labrador Petroleum Directorate, P. O. Box 4750, ST. JOHN'S, Newfoundland A1C 5T7	Offshore Newfoundland	11 m of core from 2 wells	1
27. Newfoundland and Labrador Dept. of Mines and Energy, Core Library, PASADENA, Newfoundland	Newfoundland and Labrador Dept. of Mines & Energy, P. O. Box 4750, ST. JOHN'S, Newfoundland A1C 5T7	Insular Newfoundland west of Gander	114,000 m of core	1 temporary

INDEXING	CONFIDENTIAL STATUS	FEES	DATA REDUCTION	EXAMINATION FACILITIES	SAMPLING	OTHER SERVICES
manual card index, map	confidential if property in good standing	no	no	tables, heated area	yes	assessment files available from Geoscience Data Section
computer file, well summary cards	exploratory wells one year, development wells 30 days	no	cores slabbed	tables, water supply, microscopes	yes	core analyses, fluid analyses, DST data, hydrocarbon production data
computer file, paper index	in general, up to 90 days; mostly nonconfidential	no	yes	tables, water supply, microscopes	yes	company and MNR core logs, petrologic and geochemical analyses on file
computer file, paper index	at request of donor	no	mine cores to be reduced	tables, water supply, microscopes	yes	company and MNR core logs, petrologic and geochemical analyses on file
computer file, paper index	in general, up to 90 days; mostly nonconfidential	no	yes	tables, water supply, microscopes	yes	company and MNR core logs, petrologic and geochemical analyses on file
paper index	at request of donor	no	no	tables, water supply	yes	company and MNR core logs, petrologic and geochemical analyses on file
well location maps	at request of donor	no	no	tables, water supply	no regulations formulated	company and MNR core logs, petrologic and geochemical analyses on file
no	at discretion of individual Research Scientist	no	no	no	at discretion of individual Research Scientist	not applicable
manual card file; computer file in preparation	some material confidential up to one year	no	yes	tables, water supply, microscopes	restricted	no
paper index	one year (longer on request)	no	yes	tables, water supply, microscopes	yes	no
paper index	one year (renewable on request)	no	yes	tables, water supply, microscope	yes	some geochemical analyses in Ministry files
available from Centre de diffusion de la Géoinformation; published well data	one year	no	yes	tables, water supply	yes	other subsurface data from Centre de diffusion de la Géoinformation
paper index	wildcat wells 2 years, stepout wells 60 days	no	no	no	no regulations	core analyses
catalogue of wells with cores	up to 3 years	no	no	tables, water supply, microscope	yes; guidelines in preparation	assay results and logs available for all cores

REPOSITORY	GOVERNMENT AGENCY	DISTRIBUTION OF WELLS	HOLDINGS	STAFF
28. Newfoundland and Labrador Dept. of Mines and Energy, Core Library, ST. JOHN'S, Newfoundland	Newfoundland and Labrador Dept. of Mines and Energy, P. O. Box 4750, ST. JOHN'S, Newfoundland A1C 5T7	Eastern insular Newfoundland and St. Lawrence area	60,000 m of core	1
29. Newfoundland and Labrador Dept. of Mines and Energy, Core Library, GOOSE BAY, Labrador	Newfoundland and Labrador Dept. of Mines and Energy, P. O. Box 4750, ST. JOHN'S, Newfoundland A1C 5T7	Onshore Labrador	8,600 m of core	no
30. New Brunswick Dept. of Natural Resources Core Repository, P.O. Box 50, BATHURST, New Brunswick E2A 3Z1	New Brunswick Dept. of Natural Resources, Mineral Resources Division, P. O. Box 6000, FREDERICTON, New Brunswick E3B 5H1	Onshore New Brunswick north of 47° 00' 00" N Latitude	108,043 m of core	no
31. New Brunswick Dept. of Natural Resources Core Repository, MADRAN, New Brunswick	New Brunswick Dept. of Natural Resources, Mineral Resources Division, P. O. Box 6000, FREDERICTON, New Brunswick E3B 5H1	Onshore New Brunswick north of 47° 00' 00" N Latitude		no
32. New Brunswick Dept. of Natural Resources Core Repository, 498 York Street, FREDERICTON, New Brunswick	New Brunswick Dept. of Natural Resources, Mineral Resources Division, P. O. Box 6000, FREDERICTON, New Brunswick E3B 5H1	Onshore New Brunswick between 46° 00' 00" and 47° 00' 00" Latitude	16,199 m of core from 142 holes; drill cuttings	no
33. New Brunswick Dept. of Natural Resources Soils and Minerals Laboratory, College Hill Road, FREDERICTON, New Brunswick	New Brunswick Dept. of Natural Resources, Mineral Resources Division, P.O. Box 6000, FREDERICTON, New Brunswick E3B 5H1	Onshore New Brunswick between 46° 00' 00" and 47° 00' 00" Latitude	14,630 m of core from 93 wells and core holes; 195,072 m of drill cuttings from 490 wells	no
34. New Brunswick Dept. of Natural Resources Core Repository, Piccadilly Road, SUSSEX, New Brunswick	New Brunswick Dept. of Natural Resources, Mineral Resources Division, P. O. Box 6000, FREDERICTON, New Brunswick E3B 5H1	Onshore New Brunswick south of 46° 00' 00" Latitude	31,000 m of core	no
35. Nova Scotia Dept. of Mines and Energy Drill-Core Repository, 32 Bridge Avenue, P. O. Box 999, STELLARTON, Nova Scotia BOK 1S0	Nova Scotia Dept. of Mines and Energy, 32 Bridge Avenue, P. O. Box 999, STELLARTON, Nova Scotia BOK 1S0	Onshore Nova Scotia	252,000 m of core from 1,800 wells; drill cuttings	2 technicians (60% of time)
36. Canada Oil and Gas Land Administration Core Repository, Bedford Institute of Oceanography, P.O. Box 1006, DARTMOUTH, Nova Scotia B2Y 4A2	Canada Oil and Gas Land Administration, 355 River Road Vanier Tower "B", VANIER, Ontario K1A 0E4	Scotian Shelf, Grand Banks, Labrador, Hudson Bay, Northumberland Strait, Bay of Fundy, Gulf of St. Lawrence	2,500 m of core from 103 wells; drill cuttings from about 210 wells representing 685,500 m drilled	?
37. Atlantic Geoscience Centre, Geological Survey of Canada, Bedford Institute of Oceanography, P. O. Box 1006, DARTMOUTH, Nova Scotia B2Y 4A2	Geological Survey of Canada, 601 Booth Street, OTTAWA, Ontario K1A 0E8	Offshore eastern and northern Canada from Georges Bank to the Beaufort Sea; onshore Nova Scotia, Prince Edward Island, New Brunswick, Québec, Ontario	marine soft-sediment cores, grab and dredge samples: 3,200 seabed surface samples, 3,800 unconsolidated sediment cores, 50 drill core samples; water samples; processed sample material	1
38. Dept. of Fisheries, Beach Grove Road, CHARLOTTETOWN, Prince Edward Island	Dept. of Energy and Forestry, Energy and Minerals Branch, P. O. Box 2000, CHARLOTTETOWN, Prince Edward Island C1A 7N8	Onshore Prince Edward Island	914 m of core	no
39. H.S. Bostock Core Library, Indian and Northern Affairs Canada, 200 Range Road, WHITEHORSE, Yukon Y1A 3V1	Indian and Northern Affairs Canada, Exploration and Geological Services Division, 200 Range Road, WHITEHORSE, Yukon Y1A 3V1	Onshore Yukon	100,000 m of core	1
40. C.S. Lord Core Library, Indian & Northern Affairs Canada, 52 Avenue, YELLOWKNIFE, Northwest Territories	Indian and Northern Affairs Canada, Northern Affairs Program, Geology Division, P. O. Box 1500, YELLOWKNIFE, Northwest Territories X1A 2R3	Onshore Northwest Territories	19,964 m of core from 43 properties	1

INDEXING	CONFIDENTIAL STATUS	FEES	DATA REDUCTION	EXAMINATION FACILITIES	SAMPLING	OTHER SERVICES
catalogue of wells with cores	up to 3 years	no	no	tables, water supply, microscope	yes; guidelines in preparation	assay results and logs available for all cores
catalogue of wells with cores	up to 3 years	no	no	tables, water supply, microscope	yes; guidelines in preparation	assay results and logs available for all cores
catalogue of holdings in preparation	no	no	no	tables, water supply, microscope	yes	assessment files
catalogue of holdings in preparation	no	no	no	tables, water supply	yes	assessment files
paper index	confidential status on request	no	yes	table	no	no
paper index	confidential status on request	no	no	table, water supply, microscope	yes; only previously unsampled core	petrologic/geochemical analyses, core analyses, fluid analyses
list of drill holes	no	no	yes	no indoor facilities; examination outdoors in summer	under exceptional conditions	no
catalogue of holdings	all cores non-confidential; 2 years for assessment report data	no	pending	tables, water supply, microscopes	yes	petrologic/geochemical analyses, core analyses
schedule of wells	exploratory wells 2 years, stepout wells 90 days; research 5 years	no	no	tables, water supply	yes	petrologic/geochemical analyses, core analyses, fluid analyses, DST data
computer file, core inventory and sample index (offshore), cuttings inventory (onshore)	no	no	no	tables, water supply	yes	not applicable
no	no	no	no	no	no regulations	not applicable
2 manual card indexes (references by company and on NTS Map Sheet)	confidential while property in good standing	no	no	tables, water supply, microscopes	yes	no
paper index	3 years	no	no, but planned	tables, water supply, microscopes	for research only	no

Annexe 2

Entreposage des carottes de sondage, des déblais de forage et d'autres échantillons de roches provenant des puits forés au Canada

DÉPÔT	ORGANISME GOUVERNEMENTAL	EMPLACEMENT DES PUITS	COLLECTION	PERSONNEL
1. Ministry of Energy, Mines and Petroleum Resources Core Laboratory, Box 6880, FORT ST. JOHN, (Colombie-Britannique) V1J 4J3	Ministry of Energy, Mines and Petroleum Resources, Parliament Buildings, VICTORIA (Colombie-Britannique) V8V 1X4	Sur terre en Colombie-Britannique	68 691 m de carottes provenant de 5 850 puits, déblais de forage	3 (et du personnel de soutien)
2. Centre géoscientifique du Pacifique, 9860 West Saanich Road, P.O. Box 6000, SIDNEY, (Colombie-Britannique)	Commission géologique du Canada, 601, rue Booth, OTTAWA (Ontario) K1A 0E8	Au large de la côte ouest du Canada	carottes de sédiments marins friables provenant de 450 puits	1
3. Core Research Centre, 3545 Research Way N.W., CALGARY (Alberta) T2L 1Y7	Energy Resources Conservation Board, 604 - 5th Avenue S.W., CALGARY (Alberta) T2P 3G4	En Alberta, à l'exception du Bouclier précambrien	1 000 000 m de carottes; environ 8 000 000 de fioles de déblais de forage	41
4. Mineral Exploration Sample Storage Facility, Alberta Research Council, 11547 - 160th Street, EDMONTON (Alberta) T5M 3V9	Alberta Geological Survey, Alberta Research Council, 3rd Floor, Terrace Plaza, 4445 Calgary Trail South, EDMONTON (Alberta) T6H 5R7	En Alberta, y compris le Bouclier précambrien	8 891 m de carottes provenant de 92 trous	1 chercheur
5. Oil Sands Sample Bank, Highway 16E and 17th St., EDMONTON (Alberta)	Alberta Research Council, 11315 - 87th Avenue, EDMONTON (Alberta) T6G 2C2	Les districts Athabasca, McMurray et Peace River du nord de l'Alberta	122 m de carottes provenant de 5 puits; 40 tonnes de sable bitumineux en vrac	3
6. Dépôt de carottes de sondage et d'échantillons, Institut de géologie sédimentaire et pétrolière, 3303 - 33rd Street N.W., CALGARY (Alberta) T2L 2A7	Commission géologique du Canada, 601, rue Booth, OTTAWA (Ontario) K1A 0E8	Sur terre et en mer au nord du 60° de latitude Nord, au large de la côte ouest (carottes et déblais de forage); C.-B., Alb., Sask., Man., au large de la côte est (déblais de forage)	53 340 m de carottes provenant de 350 puits; déblais de forage	2
7. Subsurface Geological Laboratory, 201 Dewdney Avenue East, REGINA (Saskatchewan) S4N 4G3	Saskatchewan Energy & Mines, Toronto-Dominion Building, 1914 Hamilton Street, REGINA (Saskatchewan) S4P 4V4	Sud de la Saskatchewan	304 800 m de carottes provenant d'environ 10 000 puits; déblais de forage	8
8. Precambrian Geological Laboratory, 1310 La Ronge Avenue, P.O. Box 5000 LA RONGE (Saskatchewan) S0J 1L0	Saskatchewan Energy & Mines, Toronto-Dominion Building, 1914 Hamilton Street, REGINA (Saskatchewan) S4P 4V4	Nord de la Saskatchewan	30 534 m de carottes provenant de 707 trous	2
9. Phanerozoic Drill-Core Library, Building 12, University of Manitoba Campus, WINNIPEG (Manitoba)	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG (Manitoba) R3C 4E3	Sud-Ouest du Manitoba	66 700 m de carottes provenant de 2 500 puits; déblais de forage	personnel du laboratoire central de géologie, au besoin
10. Phanerozoic Drill-Core Library, Brady Road at South Perimeter Hwy., WINNIPEG (Manitoba)	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG (Manitoba) R3C 4E3	Sud-Ouest du Manitoba		personnel du laboratoire central de géologie, au besoin
11. Precambrian Drill-Core Library, Brady Road at South Perimeter Hwy., WINNIPEG (Manitoba)	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG (Manitoba) R3C 4E3	Surtout dans le sud-est du Manitoba	11 600 m de carottes	[illegible] (administration centrale)
12. Precambrian Drill-Core Library, c/o Conservation Officer, Dept. of Natural Resources, 675 Halstead Street, LYNN LAKE (Manitoba)	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG (Manitoba) R3C 4E3	Zone des roches vertes de Lynn Lake, partie nord du bassin Kisseynew, nord du Manitoba en général	24 300 m de carottes	non
13. Precambrian Drill-Core Library, c/o Manitoba Department of Energy and Mines, Mining Engineering Section, Provincial Bldg., 59 Elizabeth Drive, THOMPSON (Manitoba) R8N 1X4	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG (Manitoba) R3C 4E3	District Thompson du nord du Manitoba	27 500 m de carottes	non

Annexe 2 (cont'd)

RÉPERTOIRE	COTE CONFIDENTIELLE	TARIFS	RÉDUCTION DES DONNÉES	INSTALLATIONS D'EXAMEN	ÉCHANTILLONNAGE	AUTRES SERVICES
numéros des puits inscrits sur des cartes (système manuel)	durée variable	oui	non	tables, eau	oui; la taille des échantillons est limitée	analyses pétrographiques et géochimiques, analyses des carottes et des fluides, données sur les essais aux tiges, données sur la production des hydrocarbures
numéros des échantillons, date, emplacement, etc., versés à un fichier informatique	non	non	non	aire pour travaux de laboratoire	oui	non
cartes (système manuel)	un an	oui	non	très importantes	oui	autres données sur les matériaux du sous-sol publiées par l'ERCB
fichier informatique	au moins un an	non	oui, pour les régions où les forages sont nombreux	tables, eau et microscope	oui, mais limitée	dossiers sur l'évaluation des minéraux tirés des rapports des sociétés (sur microfiche)
fichier informatique en préparation	aucune restriction	oui (échantillons)	sans objet	dans les locaux de l'Alberta Geological Survey	les échantillons sont vendus commercialement aux fins de recherches	analyses pétrolières, rassemble les résultats des analyses d'eau provenant de la Sample Bank; autres données de l'AGS
cartes-fiches, listes des puits	2 ans pour les puits de recherche, 60 jours pour les puits de délimitation (fédéral); un an et 30 jours (provinces)	non	non	tables, eau	oui	rapports sur le forage des puits situés dans les terres du Canada
cartes-fiches; fichier informatique	un an pour les puits de recherche, un mois pour les puits de délimitation; autres restrictions spéciales	oui	non	tables, eau	oui	on peut obtenir de la Geodata Section d'autres données sur les matériaux du sous-sol
inventaire des carottes, par le SNRC fichier sur support de papier (cartes, diagraphies, sections, résultats des essais)	non	non	oui	tables, eau, microscopes	oui	dossiers sur l'évaluation et dossier spécial sur la collection de carottes minéralisées
répertoire publié, liste des puits, répertoire des puits (sur cartes)	un an pour les puits de recherche (2 ans pour la région de la baie d'Hudson)	non, mais le tarif est en préparation	non	tables, eau, microscopes	oui	on peut obtenir de la Petroleum Branch d'autres données sur les matériaux du sous-sol
répertoire publié, liste des puits, répertoire des puits (sur cartes)	un an pour les puits de recherche (2 ans pour la région de la baie d'Hudson)	non, mais le tarif est en préparation	non	tables, eau	oui	on peut obtenir de la Petroleum Branch d'autres données sur les matériaux du sous-sol
répertoire manuel sur cartes, index des cartes	les données sont confidentielles tant que les propriétés sont en règle	non	non	tables, local chauffé,	oui	on peut obtenir de la Geoscience Data Section les dossiers sur l'évaluation
répertoire manuel sur cartes, index des cartes	les données sont confidentielles tant que les propriétés sont en règle	non	non	tables, local chauffé	oui	on peut obtenir de la Geoscience Data Section les dossiers sur l'évaluation
répertoire manuel sur cartes, index des cartes	les données sont confidentielles tant que les propriétés sont en règle	non	non	tables, local chauffé	oui	on peut obtenir de la Geoscience Data Section les dossiers sur l'évaluation

DÉPÔT	ORGANISME GOUVERNEMENTAL	EMPLACEMENT DES PUITS	COLLECTION	PERSONNEL
14. Precambrian Drill-Core Library, c/o Mining Recorder, Provincial Building, 3rd & Ross Avenue, THE PAS (Manitoba) R9A 1M4	Manitoba Department of Energy and Mines, Eaton Place, 555 - 330 Graham Avenue, WINNIPEG (Manitoba) R3C 4E3	District Flin-Flon – Snow Lake du nord-est du Manitoba	64 000 m de carottes	non
15. Laboratoire des ressources en hydrocarbures 458, av. Central, LONDON (Ontario) N6E 2B3	Ministère des Richesses naturelles de l'Ontario, 77, rue Grenville, TORONTO (Ontario) M5S 1B3	Sur terre et en mer (lac Érié) dans le sud-ouest de l'Ontario, sud-est de l'Ontario, partie ontarienne émergée de la plate-forme Hudson	plus de 37 000 m de carottes provenant de 750 puits; déblais de forage provenant de 6 400 puits	7
16. Division minière Larder Lake, Dépôt des carottes prélevées par forage au diamant, MRN, Bureau du district Kirkland Lake, CP 129, SWASTIKA (Ontario) P0K 1T0	Ministère des Richesses naturelles de l'Ontario, 77, rue Grenville, TORONTO (Ontario) M5S 1B3	Division minière Larder Lake du nord de l'Ontario	60 960 m de carottes	1 (et 1 employé à temps partiel)
17. Dépôt des carottes prélevées par forage au diamant, 64, rue Church, SAULT-SAINTE-MARIE (Ontario)	Ministère des Richesses naturelles de l'Ontario, 77, rue Grenville, TORONTO (Ontario) M5S 1B3	Division minière Sault-Sainte-Marie de la partie nord du centre de l'Ontario	27 432 m de carottes	2
18. Division minière Porcupine, Dépôt des carottes prélevées par forage au diamant, MRN, Bureau du district Timmins, 896, promenade Riverside, TIMMINS (Ontario) P4N 3W2	Ministère des Richesses naturelles de l'Ontario, 77, rue Grenville, TORONTO (Ontario) M5S 1B3	Division minière Porcupine du nord de l'Ontario	36 576 m de carottes entreposées; 30 480 m dans des endroits provisoires	1 (et 1 employé à temps partiel)
19. MRN, Bureau régional du Nord-Est, 199, rue Larch, SUDBURY (Ontario) P3E 5P9	Ministère des Richesses naturelles de l'Ontario, 77, rue Grenville, TORONTO (Ontario) M5S 1B3	Division minière Sudbury du nord-est de l'Ontario	environ 1 000 m de carottes gardées à McFarlane Lake	non
20. Division minière Thunder Bay, Dépôt des carottes prélevées par forage au diamant, a/s MRN, Bureau régional de la partie nord du Centre, 435, rue James, THUNDER BAY (Ontario) P7C 5G6	Ministère des Richesses naturelles de l'Ontario, 77, rue Grenville, TORONTO (Ontario) M5S 1B3	Division minière Thunder Bay de la partie nord du centre de l'Ontario	11 369 m de carottes	non
21. Centre canadien des eaux intérieures, Dépôt des carottes de sondage, 867, chemin Lakeshore, BURLINGTON (Ontario)	Centre canadien des eaux intérieures, CP 5050, BURLINGTON (Ontario) L7R 4A6	Région offshore du sud de l'Ontario (Grands lacs); petits lacs choisis de l'Ontario	carottes de sédiments lacustres friables	non
22. Ministère de l'Énergie et des Ressources du Québec, Lithothèque de Rouyn, 60, rue Bernatchez, ROUYN (Québec)	Ministère de l'Énergie et des Ressources du Québec, 1620, boulevard de l'Entente, QUÉBEC (Québec) G1S 4N6	District Rouyn-Noranda du nord-ouest du Québec	176 000 m de carottes; échantillons de roches	3
23. Ministère de l'Énergie et des Ressources du Québec, Lithothèque de Val d'Or, 840, 3e Avenue, VAL D'OR (Québec)	Ministère de l'Énergie et des Ressources du Québec, 1620, boulevard de l'Entente, QUÉBEC (Québec) G1S 4N6	District Val d'Or-Matagami du nord-ouest du Québec	22 723 m de carottes; échantillons de roches et de minerais	1 (et 1 employé à temps partiel)
24. Ministère de l'Énergie et des Ressources du Québec, 375, 3e Rue, CHIBOUGAMAU (Québec) G8P 1N4	Ministère de l'Énergie et des Ressources du Québec, 1620, boulevard de l'Entente QUÉBEC (Québec) G1S 4N6	District de Chibougamau du nord du Québec	18 288 m de carottes provenant de 120 puits	non
25. Ministère de l'Énergie et des Ressources du Québec, 630, rue Godin, Porte nº 5, Ville Vanier, QUÉBEC (Québec)	Ministère de l'Énergie et des Ressources du Québec, 1620, boulevard de l'Entente QUÉBEC (Québec) G1S 4N6	Sur la terre ferme des régions du Saint-Laurent et de Gaspé du sud et du sud-est du Québec, île d'Anticosti	13 176 m de carottes provenant de 157 puits; déblais de forage provenant de 306 puits; échantillons de roches	1 employé à temps partiel
26. Newfoundland and Labrador Petroleum Directorate, Sample and Core Repository, TORBAY (Terre-Neuve)	Newfoundland and Labrador Petroleum Directorate, CP 4750, ST. JOHN'S (Terre-Neuve) A1C 5T7	Au large des côtes de Terre-Neuve	11 m de carottes provenant de 2 puits	1
27. Newfoundland and Labrador Dept. of Mines and Energy, Core Library, PASADENA (Terre-Neuve)	Newfoundland and Labrador Dept. of Mines and Energy, CP 4750, ST. JOHN'S (Terre-Neuve) A1C 5T7	Dans l'île de Terre-Neuve, à l'ouest de Gander	114 000 m de carottes	1 employé pour une période déterminée

RÉPERTOIRE	COTE CONFIDENTIELLE	TARIFS	RÉDUCTION DES DONNÉES	INSTALLATIONS D'EXAMEN	ÉCHANTILLONNAGE	AUTRES SERVICES
répertoire manuel sur cartes	les données sont confidentielles tant que les propriétés sont en règle	non	non	tables, local chauffé	oui	on peut obtenir les dossiers sur l'évaluation de la Geoscience Data Section
fichier informatique, cartes renfermant des données générales sur les puits	un an pour les puits d'exploration, 30 jours pour les puits de développement	non	carottes sciées en plaques	tables, eau, microscopes	oui	analyses des carottes et des fluides, données sur les essais aux tiges et sur la production des hydrocarbures
fichier informatique, répertoire sur support de papier	en général, jusqu'à 90 jours; la plupart des données sont non confidentielles	non	oui	tables, eau, microscopes	oui	diagraphies des sociétés et du MRN, dossier sur les analyses pétrographiques et géochimiques
fichier informatique, répertoire sur support de papier	à la demande du donneur	non	les carottes provenant des mines sont réduites	tables, eau, microscopes	oui	diagraphies des sociétés et du MRN, dossier sur les analyses pétrographiques et géochimiques
fichier informatique, répertoire sur support de papier	en général, jusqu'à 90 jours; la plupart des données sont non confidentielles	non	oui	tables, eau, microscopes	oui	diagraphies des sociétés et du MRN, dossier sur les analyses pétrographiques et géochimiques
répertoire sur support de papier	à la demande du donneur	non	non	tables, eau	oui	diagraphies des sociétés et du MRN, dossier sur les analyses pétrographiques et géochimiques
cartes indiquant l'emplacement des puits	à la demande du donneur	non	non	tables, eau	pas de règlements officiels	diagraphies des sociétés et du MRN, dossier sur les analyses pétrographiques et géochimiques
non	la décision revient au chercheur	non	non	non	la décision revient au chercheur	sans objet
fichier manuel sur cartes; fichier informatique en préparation	certains documents sont confidentiels pour un an ou plus	non	oui	tables, eau, microscopes	restreint	non
répertoire sur supoort de papier	un an (plus longtemps, sur demande)	non	oui	tables, eau, microscopes	oui	non
répertoire sur support de papier	un an (plus longtemps, sur demande)	non	oui	tables, eau, microscopes	oui	les résultats de certaines analyses géochimiques sont versés aux dossiers du Ministère
on peut l'obtenir du Centre de diffusion de la géoinformation; données publiées concernant les puits	un an	non	oui	tables, eau	oui	d'autres données sur les matériaux du sous-sol provenant du Centre de diffusion de la géoinformation
répertoire sur support de papier	2 ans pour les puits de recherche, 60 jours pour les puits d'extension	non	non	non	aucun règlement	analyses des carottes
catalogue des puits et des carottes	jusqu'à 3 ans	non	non	tables, eau, microscope	oui; lignes directrices en préparation	on peut obtenir les résultats des essais et les diagraphies concernant n'importe quelle carotte

DÉPÔT	ORGANISME GOUVERNEMENTAL	EMPLACEMENT DES PUITS	COLLECTION	PERSONNEL
28. Newfoundland and Labrador Dept. of Mines and Energy, Core Library, ST. JOHN'S (Terre-Neuve)	Newfoundland and Labrador Dept. of Mines and Energy, CP 4750, ST. JOHN'S (Terre-Neuve) A1C 5T7	Dans l'est de l'Île de Terre-Neuve et dans la région du Saint-Laurent	60 000 m de carottes	1
29. Newfoundland and Labrador Dept. of Mines and Energy, Core Library, GOOSE BAY (Labrador)	Newfoundland and Labrador Dept. of Mines and Energy, CP 4750, ST. JOHN'S (Terre-Neuve) A1C 5T7	Sur la terre ferme du Labrador	8 600 m de carottes	non
30. Ministère des Ressources naturelles du Nouveau-Brunswick, Dépôt des carottes de sondage, CP 50, BATHURST (Nouveau-Brunswick) E2A 3Z1	Ministère des Ressources naturelles du Nouveau-Brunswick, Division des ressources minérales, CP 6000, FREDERICTON (Nouveau-Brunswick) E3B 5H1	Sur la terre ferme du Nouveau-Brunswick, au nord du 47° de latitude Nord	108 043 m de carottes	non
31. Ministère des Ressources naturelles du Nouveau-Brunswick, Dépôt des carottes de sondage, MADRAN (Nouveau-Brunswick)	Ministère des Ressources naturelles du Nouveau-Brunswick, Division des ressources minérales, CP 6000, FREDERICTON (Nouveau-Brunswick) E3B 5H1	Sur la terre ferme du Nouveau-Brunswick, au nord du 47° de latitude Nord		non
32. Ministère des Ressources naturelles du Nouveau-Brunswick, Dépôt des carottes de sondage, 498, rue York, FREDERICTON (Nouveau-Brunswick)	Ministère des Ressources naturelles du Nouveau-Brunswick, Division des ressources minérales, CP 6000, FREDERICTON (Nouveau-Brunswick) E3B 5H1	Sur la terre ferme du Nouveau-Brunswick, au nord du 47° de latitude Nord	16 399 m de carottes provenant de 142 trous; déblais de forage	non
33. Ministère des Ressources naturelles du Nouveau-Brunswick, Laboratoire des sols et des minéraux, Chemin College Hill, FREDERICTON (Nouveau-Brunswick)	Ministère des Ressources naturelles du Nouveau-Brunswick, Division des ressources minérales, CP 6000, FREDERICTON (Nouveau-Brunswick) E3B 5H1	Sur la terre ferme du Nouveau-Brunswick, entre les 46° et 47° de latitude	14 630 m de carottes provenant de 93 puits et et trous de sondages; 195 072 m de déblais de forage provenant de 490 puits	non
34. Ministère des Ressources naturelles du Nouveau-Brunswick, Dépôt des carottes de sondage, Chemin Piccadilly, SUSSEX (Nouveau-Brunswick)	Ministère des Ressources naturelles du Nouveau-Brunswick, Division des ressources minérales, CP 6000, FREDERICTON (Nouveau-Brunswick) E3B 5H1	Sur la terre ferme du Nouveau-Brunswick, au sud du 46°	31 000 m de carottes	non
35. Nova Scotia Dept. of Mines and Energy Drill-Core Repository, 32 Bridge Avenue, P.O. Box 999, STELLARTON (Nouvelle-Écosse)	Nova Scotia Dept. of Mines and Energy, 32 Bridge Avenue, P.O. Box 999, STELLARTON (Nouvelle-Écosse) B0K 1S0	Sur la terre ferme de la Nouvelle-Écosse	252 000 m de carottes provenant de 1 800 puits; déblais de forage	2 techniciens (60% du temps)
36. Dépôt des carottes de sondage de l'Administration du pétrole et du gaz des Terres du Canada, Institut océanographique de Bedford, P.O. Box 1006, DARTMOUTH (Nouvelle-Écosse) B2Y 4A2	Administration du pétrole et du gaz des Terres du Canada, 355, chemin River, Tour Vanier "B", VANIER (Ontario) K1A 0E4	Plateau continental Scotian, Grands Bancs, Labrador, baie d'Hudson, détroit de Northumberland, baie de Fundy, golfe du Saint-Laurent	2 500 m de carottes provenant d'environ 210 puits représentant des forages sur 685 500 m	2
37. Centre géoscientifique de l'Atlantique, Commission géologique du Canada, Institut océanographique de Bedford, P.O. Box 1006, DARTMOUTH	Commission géologique du Canada, 601, rue Booth, OTTAWA (Ontario) K1A 0E8	Région offshore de l'est et du nord du Canada, du banc Georges à la mer de Beaufort; sur la terre ferme de la Nouvelle-Écosse, de l'Île-du-Prince-Édouard, du Nouveau-Brunswick, du Québec,	carottes de sédiments marins friables, échantillons prélevés au hasard et par dragage: 3 200 échantillons des couches superficielles du fond marin, 3 800 carottes	1
38. Dept. of Fisheries, Beach Grove Road, CHARLOTTETOWN (Île-du-Prince-Édouard)	Dept. of Energy and Forestry, Energy and Minerals Branch, P.O. Box 2000, CHARLOTTETOWN (Île-du-Prince-Édouard) C1A 7N8	Sur la terre ferme de l'Île-du-Prince-Édouard	914 m de carottes	non
39. H.S. Bostock Core Library, Ministère des Affaires indiennes et du Nord canadien, 200 Range Road, WHITEHORSE (Yukon) Y1A 3V1	Ministère des Affaires indiennes et du Nord canadien, Division de l'exploration et des services géologiques, 200 Range Road, WHITEHORSE (Yukon) Y1A 3V1	Sur la terre ferme du Yukon	100 000 m de carottes	1
40. C.S. Lord Core Library, Ministère des Affaires indiennes et du Nord canadien, 52 avenue, YELLOWKNIFE (Territoires du Nord-Ouest)	Ministère des Affaires indiennes et du Nord canadien, Programme des affaires du Nord, Division de la géologie, P.O. Box 1500, YELLOWKNIFE (Territoires du Nord-Ouest) X1A 2R3	Sur la terre ferme des Territoires du Nord-Ouest	19 964 m de carottes provenant de 43 propriétés	1

RÉPERTOIRE	COTE CONFIDENTIELLE	TARIFS	RÉDUCTION DES DONNÉES	INSTALLATIONS D'EXAMEN	ÉCHANTILLONNAGE	AUTRES SERVICES
catalogue des puits et des carottes	jusqu'à 3 ans	non	non	tables, eau, microscope	oui; lignes directrices en préparation	on peut obtenir les résultats des essais et les diagraphies concernant n'importe quelle carotte
catalogue des puits et des carottes	jusqu'à 3 ans	non	non	tables, eau, microscope	oui; lignes directrices en préparation	on peut obtenir les résultats des essais et les diagraphies concernant n'importe quelle carotte
catalogue de la collection en préparation	non	non	non	tables, eau, microscope	oui	dossiers sur l'évaluation
catalogue de la collection en préparation	non	non	non	tables, eau	oui	dossiers sur l'évaluation
répertoire sur support de papier	sur demande	non	oui	table	oui	non
répertoire sur support de papier	sur demande	non	non	table, eau, microscope	oui; seulement sur des carottes non encore échantillonnées	analyses pétrographiques et géochimiques, analyses des carottes et des fluides
liste des trous de forage	non	non	oui	pas d'installation intérieure; examen à l'extérieur, en été	dans des circonstances exceptionnelles	non
catalogue de la collection	aucune des carottes n'a la cote confidentielle; 2 ans pour les données sur l'évaluation	non	en préparation	tables, eau, microscopes	oui	analyses pétrographiques et géochimiques, analyses des carottes
liste des puits	2 ans pour les puits d'exploration, 90 jours pour les puits d'extension; 5 ans pour les résultats des recherches	non	non	tables, eau	oui	analyses pétrographiques et géochimiques, analyses des carottes et des fluides, données sur les essais aux tiges
fichier informatique, inventaire des carottes et répertoire des échantillons (offshore), inventaire des déblais de forage (sur la terre ferme)	non	non	non	tables, eau	oui	sans objet
non	non	non	non	non	aucun règlement	sans objet
2 répertoires manuels sur cartes (classement par société et sur feuille de carte du SNRC)	les données sont confidentielles tant que les propriétés sont en règle	non	non	tables, eau, microscopes	oui	non
répertoire sur support de papier	3 ans	non	non, mais prévue	tables, eau, microscopes	aux fins de recherche seulement	non